Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

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LECTURE II.—PART IV.

ON PARALYSIS LIMITED TO A LIMB OR TO SOME MUSCLES.

A lesion in one side of the brain can give rise to paralysis either of the arm, or of the leg, alone, on the same side—A double lesion of the brain can give rise to a double brachial paralysis—Comparison between a lesion in one half of the brain producing a cross and a direct paralysis of the arm with cases of a lesion producing only either a cross or a direct brachial paralysis—Conclusions from facts relating to paralysis of the arm against the views of localisers—Conclusions as regards the value of cases of paralysis of the arm against the generally admitted view that paralysis in brain disease is due to the loss of function of the part diseased.

BEFORE giving the general conclusions from the facts I have already mentioned in this lecture, I have a few more propositions to establish, as I have done for the preceding ones, on facts published by able observers.

11. *A lesion in one side of the brain can give rise to paralysis in the arm or in the leg alone on the same side.*—In a lecture on the appearance of paralysis on the side of a lesion in the brain[1] I have already pointed out the existence of such cases. I will now merely mention a number of the most striking, and show that the seat of the lesion producing this direct paralysis of one limb may vary considerably. The seat was the *left* lateral ventricle in a case of Prost's[2]; that ventricle contained two or three ounces of fluid blood, the *left* arm had lost movement, the other arm being moved considerably. The seat was the *left* corpus striatum in a case of Boudet's[3], in which the *left* arm was completely paralysed. The posterior extremity of that corpus striatum was softened and reddish. The seat was the surface of the brain in a case of Abercrombie's,[4] in which there was a persistent and complete paralysis (for fifteen years) of the *right* arm, the right leg having recovered movement some time after the attack of apoplexy which ushered in the brachial palsy, the only lesion found being a firm adherence of the membranes of the brain to the upper part of the *right* hemisphere in a small spot, and some alteration of the longitudinal sinus. The seat was the *left* optic thalamus and the neighbouring parts (the corpus striatum and the outside or lateral part of the *left* hemisphere) in a case of Lerminier's,[5] in which blood effused in that optic thalamus had entered the surrounding parts, and produced paralysis of the *left* arm. The seat was the *left* middle lobe in a case of Dr. Gregory Forbes,[6] in which the *left* hand had lost power, and the lesion found was an oblong cavity two inches in length in that lobe. The seat of the disease was the *left* posterior lobe in a case of Mr. G. W. Callender's,[7] in which a paralysis of the *left* arm was caused by a large tubercle between the dura mater and that lobe. The seat was the inferior part of the *right* posterior lobe in a case of Stiebel's,[8] in which the *right* arm was paralysed, and the lesion was a tubercle of a filbert's size in that part. The seat was the *right* crus cerebelli, and the *right* side of the cerebellum and of the pons Varolii, in a case of Rostan's,[9] in which an exostosis of the *right* petrous bone had entered those parts, and produced paralysis of the *right* arm. The seat was the base of the brain in a case of Boyer's,[10] in which there was paralysis of the *right* arm caused by a tumour pressing on the *right* crus cerebri and the *right* side of the pons Varolii, the cerebellum, and the medulla oblongata. In some cases the seat was in both sides of the brain, but more extensive in the side corresponding with the paralysis. So it was in a case published by Labbé,[11] and in which there was paralysis of the *right* arm with cerebral meningitis, an infiltration of the pia mater in the interpeduncular space, and softening of the grey matter, besides destruction of the posterior and lower extremity of the *right* occipital lobe and an opening in the *right* lateral ventricle. So it was also in a case of Brierre de Boismont's,[12] in which, after incomplete hemiplegia, the *left* leg recovered motion, while the *left* arm remained completely paralysed. There was a considerable effusion of blood in the *left* middle lobe, the clot of nearly three ounces, the cerebral substance softened all around, and in the *right* optic thalamus and corpus striatum there were five small spots of a yellowish-red colour, with also a softened spot in the optic thalamus.[13]

As regards the leg, out of several hundreds of cases of paralysis on the side of a brain lesion I found but a few in which that limb was alone paralysed. In two cases of Mr. G. W. Callender's[14] there was hemiplegia, but in one the leg was more affected than the arm, and in the other the leg was at first alone paralysed. In the first of these cases there was softening from embolism chiefly in the *right* side of the brain, the side of the paralysis. In the second case there was an obstruction by clots in the *left* anterior, middle, and posterior cerebral arteries, and also in the basilar and in the *left* posterior cerebellar arteries, the paralysis being in the *left* side. In a case of Dr. W. W. Wellington's[15] there was at first a diminution of movement in the *right* leg. A cyst, two inches in diameter, protruded from the base of the *right* side of the cerebellum pressing notably on the pons Varolii. Mr. Henry Taylor[16] has noticed wasting (which implies paralysis) of the *left* leg in a case of large tumour of the *left* side of the cerebellum.

In many ways the cases I have just mentioned of paralysis of either the leg or of the arm, occurring on the side of the lesion, lead to important arguments against the generally admitted views concerning the mode of origin of paralysis. In the first place, the fact of a paralysis (whether of two limbs or of one alone) occurring on the side of a brain lesion is in absolute opposition to the received views;[17] in the second place, several of these cases show a paralysis of one limb only or chiefly when the lesion was not seated where the localisers of our day place the pretended motor centres of limbs; and, in the third place, some of those cases show a paralysis occurring from disease in parts of the brain quite distinct from the supposed voluntary motor apparatus.

12. *A double lesion of the brain can give rise to a double brachial paralysis, or to a double paralysis of legs.*—I have already, in the first lecture, shown that a lesion in one side of the brain can produce paralysis in both arms, or in both legs, alone.[18] What is then produced in limbs is the

[1] Published in THE LANCET, Jan. 1876.
[2] Médecine Eclairée par l'Ouverture des Corps (1804), vol. ii., p. 85; quoted by Gintrac, loc. cit., vol. vii., p. 276.
[3] Gazette Médicale de Paris, 1839, p. 71.
[4] Loc. cit., p. 249.
[5] Annuaire Médico-Chirurgical (Paris, 1819), p. 223.
[6] Transactions of the Pathological Society (1862), vol. xiii., p. 7.
[7] St. Bartholomew's Hospital Reports (1869), vol. v., p. 5.
[8] Quoted by Ladame, loc. cit., p. 240.
[9] Loc. cit., obs. 38, p. 143.
[10] Bulletins de la Société Anatomique (1831), vol. ix., p. 278.
[11] Ibid., vol. XXXV. (1860), p. 102.
[12] Gazette des Hôpitaux, 1842, p. 400; quoted by Gintrac, loc. cit., vol. vii., p. 287.
[13] I ought to add here a remarkable case of Rostan's, which I have already mentioned, and in which there was an incomplete paralysis of the *right* arm, with considerable alteration (ramollissement) of the *right* corpus striatum, and only traces of softening in the *left* corpus striatum. (Loc. cit., obs. 8, p. 36.)
[14] Loc. cit., vol. v. (1869), pp. 7 and 8.
[15] Boston Medical and Surgical Journal (1863), vol. lxvii., p. 251.
[16] THE LANCET (1845), vol. ii., p. 205.
[17] In his interesting work on the Functions of the Brain, recently published (London, 1876, p. 233), Dr. D. Ferrier, speaking of the facts I have collected to prove that paralysis may appear on the side of a lesion of the brain, suggests that there are individuals in whom there is no decussation of the voluntary motor conductors, "just as there are exceptions to the rule that the heart is situated to the left and the liver to the right." This supposition cannot explain an immense number of facts, and among others, first, that direct paralysis is more frequent in cases of disease of the crura cerebelli, of the cerebellum, and of the pons Varolii, than it is in cases of disease of the corpus striatum and other parts of the brain; secondly, that a lesion in one-half of the brain at one time can produce direct paralysis, at another time cross-paralysis, in the same individual; thirdly, that the two sides of the body can become simultaneously paralysed from a lesion in one side of the brain, &c. Persons who take the trouble of thinking will, if they read the ten parts constituting the first of my lectures on Paralysis, find in them many decisive arguments against the supposition that direct paralysis depends on some anatomical anomaly of the nervous system. (See THE LANCET, July to October, 1876.)
[18] THE LANCET, 1876, vol. ii., pp. 420 and 453.

double of what we see when one arm or one leg on the side opposite to the lesion, or on the same side with it, is struck with paralysis from disease in one side of the brain. A double lesion of the brain—the word double being here used with the meaning that there is one lesion in one side of the brain and another in the other side—can produce, as I will show, a double paralysis, limited either to the upper or to the lower sets of limbs. A double brachial paralysis is much more frequently caused by disease of the meninges or of the convolutions than by a lesion of other parts of the brain. In a case of Gintrac's[19] there was paralysis of the right arm, weakness of the left, and no lesion of the brain-tissue or of the spinal cord, but the arachnoid and the pia mater were inflamed, and a lactescent serosity infiltrated the latter membrane. Both arms, but especially the *left*, were also paralysed in a case of Legendre's,[20] in which there was tubercular meningitis, with softening of the grey matter of the convolutions bordering on the *left* fissure of Sylvius, and a slight lesion in the *right* hemisphere. In a case of Millet's,[21] the right hand first became weak, then the left arm was paralysed, the lesion consisting in an inflammation chiefly of the convolutions of the anterior lobes. My late friend Dr. J. H. Bennett[22] has recorded a remarkable case of complete paralysis of both arms, the movement remaining quite free in the lower limbs. There were many lesions, all consisting in red softening. The places so altered were in the upper surface and the side of the left posterior lobe, the right middle and the right posterior lobes, the inferior surface of the right anterior lobe, the left optic thalamus, the left lobe of the cerebellum, and also the inferior surface of the pons Varolii, especially on the left side. Lallemand[23] has given a case in which the two arms were paralysed, while voluntary movements persisted in the legs, notwithstanding their being attacked with cramps. The corpora striata contained thirty small stony concretions. In a case of Senn's[24] there was paralysis of the two arms with softening of the central parts of the brain. An able young physician, Dr. Baréty[25], in a case in which paralysis of the two arms preceded general palsy, found the basilar artery and also the posterior cerebral and the cerebellar arteries obliterated. In a case of tubercles in the posterior lobes of the brain, Dr. Robert Law[26] found the two arms paralysed. Diseases of the pons Varolii also have sometimes caused a double brachial paralysis. So it was in a case of cancer[27] and in one of hæmorrhage[28] in that organ. In a remarkable case of pressure on the whole medulla oblongata and pons Varolii by a tumour, the size of a goose's egg, occupying the *left* occipital fossa, Choisy[29] found paresis of both arms, especially the *left* one—i.e., the arm on the side most injured. An almost similar case has been recorded by Piaud.[30]

If there are doubts possible as regards the value of one or two of these cases, it is not so at least as regards some of them, in which the details given absolutely prove that there was more or less complete paralysis of the upper limbs without any evident paralysis of the lower ones. This is, after all, nothing but the appearance in the two sides of the brain and the two arms of what we see when a lesion in one side of that organ produces paralysis in one arm only, either on the side of the lesion or on the opposite side. The only difference is, I repeat, that, as the alteration of the cerebral tissues is *double* in one series of cases, and *simple* in the other—the paralysis is *double* in the first series and *simple* in the second, the word "double" being used now to mean that the two sides of the brain are affected and that the two arms are paralysed, and the word "simple" that one side of the brain is diseased and one arm only paralysed. I have already in the preceding lecture[31] given cases of paralysis of both arms caused by disease located only or chiefly in one side of the brain. If we compare those cases with those in which there was paralysis of only one arm, we find that when there is paralysis of two arms in one individual there is in him just what we see in two persons in those cases in which there is paralysis of only the arm on the side of the lesion in one person, and paralysis of the arm on the opposite side in the other one; so that in these last cases there is a cross paralysis in one individual and a direct paralysis in another, while these two kinds of paralysis coexist in the person attacked with palsy of both arms caused by a lesion in only one side of the brain.[32]

Summing up now all that I have stated about paralysis of the arm, I will say—

1st. That the view of Saucerotte and others, who considered the optic thalamus and the posterior lobe of one side as the centres for the voluntary movements of the upper limb on the opposite side, is completely disproved by three sets of facts: the first showing that disease in almost every other part of the brain can produce paralysis of one arm; the second, that disease in those pretended centres can produce paralysis of the leg, instead of paralysis of the arm; and the third, that sometimes paralysis of the arm, instead of appearing in the side opposite to that where the disease exists, appears in the corresponding or same side.

2nd. That the supposition of localisers of our day, who consider certain convolutions of the anterior and middle lobes on one side as being what they call psycho-motor centres for the upper limb on the opposite side, is absolutely disproved by several series of facts: the first showing that disease in almost every other part of the brain can produce paralysis of one arm; the second, that disease in the convolutions supposed to contain those pretended centres, or in the white substance under them, can produce paralysis of the leg, instead of paralysis of the arm; the third, that paralysis of one arm can be complete even when disease occupies only a very small part of the brain (whether in the zone of the pretended psycho-motor centres or elsewhere); the fourth, that sometimes paralysis will appear in the arm on the side of the cerebral lesion, instead of appearing in the upper limb on the opposite side to that of the brain lesion.

3rd. That the views of the recent as well as those of the older localisers are completely disproved—first, by facts showing that a lesion in one side only of the brain can produce paralysis in both arms—i.e., simultaneously a cross and a direct paralysis; secondly, by many facts showing that disease in various parts of the brain in the two sides can produce paralysis in both arms.

4th. That the notion still held by able medical men, and physiologists, that the corpus striatum is a centre for the voluntary movements of both limbs in the opposite side, must be given up, as there are so many facts contrary to it. For instance, we find—first, that disease in one corpus striatum can produce paralysis in the arm on the same side, or in the arm on the opposite side, or in both arms; secondly, that disease in both corpora striata can produce paralysis in both arms, or only in one; thirdly, that instead of producing paralysis in one, or in both arms, disease in one corpus striatum can cause paralysis of one of the lower limbs.

5th. That it is impossible to consider paralysis of one arm or of both arms as being an effect of loss of function, as otherwise we should have to admit the absurd or impossible view that the centre for the movements of the arm varies in different individuals—i.e., that in some it is in the anterior, in others in the middle, and in others again in the posterior lobes; that in some persons it is in the convolutions, in others in the white substance of the brain, and in others again in the central parts of that organ; that in certain individuals it is in the side of the paralysis, in others in the opposite side, and in others again in one side for both arms.

6th. That paralysis of the arm alone may be caused by disease of any part of the base of the brain, and that therefore we cannot consider that paralysis is dependent on the

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[19] Loc. cit., vol. vii., p. 616.
[20] Recherches sur quelques Maladies des Enfants (Paris, 1846), obs. xiii.
[21] Bulletins de la Société Anatomique, 1843, p. 36.
[22] Pathol. and Histol. Researches on Inflammation of the Nervous System (Edinburgh, 1843), p. 18. (Reprinted from the Edin. Med. Journ.)
[23] Loc. cit., vol. iii., p. 397.
[24] Méningite Cérébrale, 5ème obs., p. 44.
[25] Revue des Sciences Médicales, du Dr. Hayem, vol. i., 1873, p. 718.
[26] Dublin Hospital Reports, vol. v.; London Medico-Chir. Review, 1831, No. 38, p. 545.
[27] Dr. Wood, in Edin. Med. Journ., Jan., 1860.
[28] Nonat, in Lancette Française, 1832, p. 801.
[29] Bulletins de la Société Anatomique, vol. viii., 1833, p. 8, et seq.
[30] Edin. Journal of the Med. Sciences, Jan., 1827, quoted by Ladame, loc. cit., p. 43.
[31] See THE LANCET, Sept. 23rd, 1876, p. 430.

[32] I will call the attention of those who would be inclined to admit the supposition that direct paralysis is to be explained by an anatomical anomaly—a lack of decussation of conductors—to facts which show that a lesion in one half of the brain can produce at the same time a direct and a cross paralysis.

loss of function of pretended conductors for voluntary movements, as it is impossible to admit these conductors as occupying different places in different individuals.

CONTRIBUTIONS TO AURAL SURGERY.

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V. FATAL CASES OF DISEASE OF THE MIDDLE EAR.

ALTHOUGH the occasionally fatal results which attend cases of perforation of the membrana tympani are well known to the profession, it is to the fact of this affection being so common that we must attribute the indifference with which a discharge from the ear is generally regarded by so many, and for the same reason the deaths which are due indirectly to perforation of the membrana tympani might be not inappropriately spoken of as accidents in the course of disease. From whatever cause arising, where once the tympanum has become the seat of inflammation, and pus has made for itself an exit through the tympanic membrane, if the perforation does not heal within a few weeks, the prospect of closure ever taking place is very remote. The condition then arrived at in the ordinary course of events is that the cavity of the tympanum becomes a surface subject to suppuration, and discharging more or less, or ceasing to discharge, according to surrounding circumstances. Given a large number of persons with perforation of the tympanic membrane, it admits of no question that a certain proportion of them will die from inflammation of the brain or its membranes, and that others will die of pyæmia. It may be true enough that every physician and surgeon to a large hospital has these facts sufficiently often brought before his notice to be familiar enough with these cases as soon as he meets with them; still, it cannot be too often repeated that a tympanic membrane whose perforate condition may date from infancy, and be the source of an occasional purulent discharge till advanced life, can at any time during this period of life be the indirect cause of a rapidly fatal affection, until the surprise which death from this cause creates is replaced by greater attention to the condition of the ear. Even then, with every precaution, a few cases, though far less than heretofore, will, I believe, terminate fatally.

Considerably more notice to this subject has this year been directed by papers in some of the journals, and especially in reference to its bearing on life assurance by Dr. Cassells, of Glasgow, and others, confirming the opinion which I expressed on the matter in THE LANCET for 1872, as follows: "I believe that a discharge from the ear is regarded by insurance companies as an element against granting a policy, or at any rate demanding an increased premium. I can only say that, if it is not so regarded, it would be if the companies consulted their own interests."

There would appear to be two almost distinct divisions in these cases—viz.: the first, in which the fatal symptoms make their appearance soon after the attack of inflammation in the tympanum and rupture of the tympanic membrane; the second, in which the symptoms do not appear until the discharge from the tympanum (and sometimes the mastoid cells) has become chronic. In the first, I believe, must generally be placed the unavoidable deaths; in the second, those in which care and appropriate treatment will oftentimes place the patient in a position of safety.

During the past year three most noticeable instances of those in the first division came under my notice: one, where an elderly gentleman died of meningitis within a few weeks from the time when the tympanum became the seat of inflammation; another, where the same course of events occurred to a middle-aged man; and a third, in which a young boy died from pyæmia, the first rigor happening before I saw him, and a few days only after the tympanum became inflamed. However grave these cases may be, nothing of especial value would be gained by relating them in detail. But the other division cannot fail to be of great surgical interest. In this the local condition of the ear generally met with will include complete or nearly complete loss of the tympanic membrane, the tympanum being in each instance a suppurating cavity, the surface of whose lining membrane is either studded with exuberant granulations, or is the origin of a polypoid growth, which completely fills it, and in some instances protrudes into and beyond the external meatus. Occasionally added to this will be found a bony growth, a so-termed exostosis, in the meatus.

A more perilous condition than some of these complications entail can hardly be conceived—how perilous is sufficiently well attested by the number of deaths which take place from meningitis and pyæmia induced by this state of things. At the present moment, however, I desire especially to direct attention to how the fatal termination may often be prevented, and shall probably best illustrate this matter by relating briefly the following.

CASE 1.—In Oct., 1874, I saw a middle-aged lady who had for many months at times been subject to a discharge from the left ear, attended with considerable deafness, but to which she had paid little attention. She began to suffer during the early part of the year from occasional severe pains in the head, which were considered to be neuralgic, and for which she had visited German baths and tried a variety of remedies. In the summer of the year she had frequent attacks of giddiness. Amongst others she had consulted Dr. Buzzard, who referred her to me for an examination of the ear as probably being the source of her discomfort.

There was a profuse discharge from the ear, and a polypus which blocked up the furthermost portion of the meatus, and obviously was interfering with the escape of discharge from the tympanic cavity. She objected to my at once removing the growth. Within a fortnight the symptoms became more urgent in their character. She was so giddy that she could not walk upstairs or for any distance without support; the pains in the head were so severe as to interfere with her rest, and her general health was becoming seriously affected.

On a consultation with Sir W. Fergusson and Dr. Buzzard it was decided that the polypus should be removed. I accordingly took it away the next day (under ether). After the removal it was found that the tympanic membrane was completely ulcerated away, and a small portion of the bone at the lower part of the tympanic cavity was exposed. The usual local applications were subsequently used to the growth, all the pains in the head and giddiness gradually passed off, and by the early part of December there was so little discharge that it could not be detected except by very close examination with the speculum, and she had returned to her accustomed health.

From time to time I see this patient. She has had no repetition whatever of the head symptoms, and the growth has shown no signs of returning. Can there be any reasonable doubt that, in the absence of any decided treatment, the case would have followed the usual course, so often terminating in cerebral abscess or meningitis?

CASE 2.—A young gentleman, aged eighteen, was brought to me in September, 1874, with the following account:—At nine years of age, after scarlet fever, he had a discharge from both ears, which had continued more or less ever since. Up to twelve days before I saw him, with the exception of the discharge and considerable deafness, he was in good health. On that day, whilst in the garden, he had an attack of giddiness, went into the house, lay down on the sofa, became insensible for several minutes, and was violently convulsed. From the account given by a male relative who was present, the fit appeared to be of an epileptiform character. He had no further recurrence of the fit, but occasional giddiness, and a feeling of uneasiness in the head (scarcely amounting to pain) on the left side.

Both tympanic membranes were perforated; he could blow through each; and on the left side there was a small polypus, evidently growing from the lining membrane of the tympanic cavity.

The question at issue was, were the attacks of giddiness and the epileptiform fit due to cerebral irritation caused by the condition of the left ear? I removed the polypus; it was about the size of a sweet-pea, and of the usual fibro-cellular form. Careful examination with a probe did not detect any exposed bone.

The root of the polypus and the surface from which it sprang were treated with caustic application, and the hear-

ing was very materially improved by wearing the usual form of cotton-wool support to the tympanum. There has been no recurrence of the head symptoms or any return of the growth.

CASE 3.—The patient, a female seen August, 1874, had for many years been subject to discharge from the left ear, with deafness so slight that it gave her no inconvenience. For two months previously she had short periods of distressing pain in the left side of the head in the temporal region over a space that could be covered by the palm of a hand, coming on sometimes three and four times in the course of the day, and at other times absent for two or three days. Together with the pain, and occasionally without it, there was a feeling of giddiness. The effect upon her had been to reduce her to a painfully nervous state.

The tympanic membrane, with the exception of a slight rim (a condition quite compatible, by the way, with very fair hearing) was absent. The exposed surface of the tympanic cavity was covered with exuberant granulations, and there was a very small fleshy growth (scarcely large enough to be dignified by the name of polypus) in the lower and posterior corner of the furthermost portion of the meatus.

The treatment was of the simplest kind. The little growth was taken away; to the granulations on several occasions nitrate of silver was applied. With the use of the syringe she kept the ear thoroughly free from secretion, used the liquor plumbi on cotton-wool, and subsequently other astringents to the exposed tympanum.

Suffice it to say that with the improved condition of the ear all the pains in the head and giddiness disappeared, did not return, and her health was proportionately improved.

These cases are most striking examples, but others with symptoms of a less definite and marked character are most common. In fact, it is a matter of almost daily observation for patients who present themselves with extensive perforation of the tympanic membranes to complain of frequent pains in the neighbourhood of the affected ear, pains which sometimes extend over the half of the cranium, such symptoms being often accompanied with attacks of giddiness.

Can there be a question as to these patients being in a position of more or less peril? Can it be a matter of surprise that some of them eventually become the subjects of meningitis? It would be natural to expect that this occurred more frequently than it does, when the position of the suppurating surface is remembered. The routine of desirable treatment has been indicated in the foregoing cases, and may be shortly said to consist in the removal and complete eradication of polypus where it is present, an improvement of the general condition of the tympanum by astringent applications, and the use of an artificial support in the form of the flattened pad of cotton-wool, learned to be adjusted by the patient. Under the use of this latter application the tympanic cavity is always protected from the external air, and a profusely suppurating granular surface is soon replaced by a more healthy condition of mucous membrane, in which the discharge scarcely suffices to coat the pad when it is daily exchanged for a fresh one. By scrupulous cleanliness and such attention to details the fatality in these cases may, I believe, be immensely diminished, and I am the further encouraged in this view by remembering that many of the deaths from meningitis which have come under my notice have been in those where the condition of the ear has not obtained attention until premonitory symptoms of pyæmia or meningitis have set in. In these, as in all others, death has invariably followed when there has been a distinct rigor.

In conclusion, I cannot help repeating that when a polypus by its presence acts as an obstruction to the egress of discharge from the tympanic cavity, the propriety of removing it is so obvious as scarcely to merit discussion. How obvious this is may be frequently seen in the examination of these cases, when by pressing the growth on one side with a small probe, a quantity of fetid pent-up pus will escape from the tympanum. The most ready method of operating in these cases has previously been considered in THE LANCET and elsewhere, but the method by which the polypus is removed is (provided that it is entirely taken away), comparatively speaking, a trivial matter, the chief difficulties being in the after-management, which shall ensure its complete eradication, so much so that the truly important part of treatment may be said to commence after the operation. This after-treatment demands the greatest care and patience. It is not enough that the root of the growth should be destroyed, but the small portion of mucous membrane from which it springs must be treated in a like manner. In doing this the utmost caution should be used not to touch any part of the surrounding tissue, as this is in the highest degree sensitive, and if the caustic comes in contact with this part, it not only causes extreme pain, but is liable to excite great irritation and inflammation, which it is hardly necessary to observe is most undesirable and dangerous in the position under treatment. To avoid any chance of this it is necessary that the surface under manipulation should be thoroughly dried before the application of any caustic, and that the reflected light used for illumination should be the brightest obtainable. The subject of exostosis in the external meatus, as a complication in cases of perforation and polypus, was discussed in THE LANCET of Jan. 22nd, 1876, so I make no further allusion to this at present.

HARVEY AND CESALPINUS.

A FOURTH HISTORICAL FRAGMENT.

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To determine the relative merits of Andrea Cesalpino and William Harvey in the discovery of the circulation of the blood, it is of the first importance to clear up three preliminary cardinal questions. Did Cesalpinus himself know the circulation of the blood? What was the effect of his teaching on his contemporaries and successors? Did William Harvey derive his knowledge of the great truth from the philosopher of Arezzo, to whose honour a bust has just been erected in the University of Rome, with an inscription claiming that he was the discoverer of the circulation?[1]

It is not disputed that Realdus Columbus, who preceded Cesalpinus as professor in the University of Pisa, knew and taught the pulmonary circulation, which henceforward became common property. One fundamental fact, the impermeability of the septum cordis, was dwelt upon with a full sense of its importance by Columbus,[2] but overlooked, or insufficiently appreciated, by Cesalpinus. Ceradini urges very strongly that *only once, and in one only* of his works, did Cesalpinus admit that blood passes through the septum of the heart; and he suggests that the admission might be inadvertent.[3] Is it conceivable that a discoverer of a new truth would inadvertently admit one of the chief errors of fact which had stood in the way of the discovery? Such an error unquestionably was the belief in the permeability of the septum cordis, against which Michael Servetus had protested quite as plainly, and for as good reasons, as Realdus Columbus.

I have already noted, to Cesalpinus' credit,[4] that he was the first to use the word "circulation," and to call attention to the fact that when a vein is tied the vessel fills below, and not above, the ligature; but he was never able to divest his mind of the traditional and fundamental error that blood and spirit move together ("motus sanguinis et spiritus"). The Italians would do well to attach the weight it deserves to Ercolani's criticism in point. "In sciences of observation, even for great men like Cesalpino, preconceived ideas prove fatal [riescono fatali]; and we have evidence that

[1] The inscription is as follows: "Andreae Caesalpino domo Aretio archiatro eximio solertissimo natvrae investigatori quod in generali sangvinis circvlatione agnoscenda ac demonstranda caeteros antecesserit plantas nondvm in classes tribvtas primus ordinandas svsceperit rervm plvrimarvm impeditam intelligentiam explicverit vniversam morborvm doctrinam magno cvm plavsv in hoc archigymnasio tradiderit Academia Medica vrbis et x. viri a consiliis archigymnasio regvndo honoris et memoriae cavsa, MDCCCLXXVI."

[2] "Inter hos ventriculos septum adest, per quod ferè omnes existimant sanguini à dextro ventriculo ad sinistrum patefieri; ..... sed longa errant via." (De Re Anatomica, ante cit.)

[3] "Ma Cesalpino al quale una sola volta ed in una sola delle sue opere *scappò detto* che il sangue passa anche pel setto." (Ceradini, op. cit., 2nd ed., p. 253.

[4] THE LANCET, vol. ii., 1876, p. 744.

the preconceived idea of the passage of the vital spirits to the whole body clouded [ottenebrasse] the great mind of Cesalpinus.[5]"

How fatal traditional errors were to Cesalpinus, how prejudicially his success as a student of nature was marred by his subjection to the dominant philosophy of the schools, may be inferred from many parts of his works; but, to simplify the argument, I shall limit myself to the very extracts which Ceradini quotes in defence of his thesis, or for which he feels the necessity of urging extenuating pleas.

"His veneration for the Stagyrite was the reason why he did not dare to give a formal denial to his assertion, that the veins pulsated as well as the arteries."[6]

We read further on:[7]

"So there is continuous motion going on from the heart to all parts of the body, because the formation of spirit is continuous, and this by its own amplification [amplificatione] is adapted to be diffused very rapidly in all parts; but at the same time it bears the nutritive aliment, and draws from the veins the aliment of increase [et alimentum auctivum ex venis elicit]. ..... The veins supply the aliment, the arteries receive the spirit of the flame. But who will doubt it, if continuous be the supply of aliment and continuous the flame, continuous also will be the efflux of spirit through the arteries; but this being so, a contraction of the heart or arteries will never happen; which doubt," observes Ceradini,[8] "is, in fact, the logical consequence of Cesalpino's very confused theory; he, however, does not appear persuaded by it, and to reconcile completely opposed hypotheses he plunges into a series of arguments so involved that they really become unintelligible."

With all deference to the advocate, such a defence needs no reply. Here is another passage:[9]

"In living creatures we see the aliment conducted through the veins to the heart, as though that were the manufactory of innate heat, and, it having there attained its ultimate perfection, distributed through the arteries into the whole body *by the action of the spirit* [agente spiritu], which is produced in the heart out of the same aliment."

Is this the doctrine of the circulation of the blood which William Harvey taught? Anyone who doubts what answer should be given to this question may be assisted in solving it by reading another passage from the works of Cesalpinus:[10]

"Since, however, when we are awake the movement of native heat is outwards, that is to the sensoria, but in sleep inwards, that is to the heart, we must suppose that when we are awake a quantity of spirit and of blood is carried to the arteries, for from them is the passage to the nerves; but that in sleep the same heat returns to the heart through the veins, not through the arteries; for the natural passage into the heart is afforded by the vena cava, not by the artery. The pulsations are a proof of this, for these in waking persons are strong, violent, rapid, and frequent, with a certain vibration; but in sleep are weak, languid, slow, and rare. For in sleep the native heat passes less in the arteries; it forces its way into them with more violence when persons wake up. The veins, however, are just the contrary, for they are more swollen in sleep, but thinner when we are awake, as is clear to anyone who looks at the veins in the hand. For the native heat passes in sleep from the arteries into the veins through the communion of the mouths, which they call anastomoses, and thence to the heart. As, however, the overflowing (exundatio) of the blood towards the higher parts, and its return to the lower parts, like the Euripus, is manifest in sleep and in wakefulness, so a movement of this kind is perceived without difficulty in whatever part of the body a ligature is employed, or the veins are in any way closed. For where the through passage is denied, the streams swell up, in the part where they are accustomed to flow."

I confidently submit that this passage is not consistent with the idea that Cesalpinus knew the circulation of the blood as it is in nature, and as Harvey taught it. In his second disquisition to John Riolan, jun.,[11] Harvey has supplied a brief recapitulation, which may be quoted here with advantage, of what he has said in his work on the motion of the heart and blood:—"The auricle being dilated, and then contracting, in virtue of its pulsative power, forthwith delivers its charge into the right ventricle, which, being filled, and the systole ensuing, the charge, hindered from returning into the auricle by the tricuspid valves, is forced into the pulmonary artery, which stands open to receive it, and is immediately distended with it. Once in the pulmonary artery the blood cannot return, by reason of the sigmoid valves; and then the lungs, alternately expanded and contracted during inspiration and expiration, afford it passage by the proper vessels into the pulmonary veins; from the pulmonary veins the left auricle, acting equally and synchronously with the right auricle, delivers the blood into the left ventricle, which, acting harmoniously with the right ventricle, and all regress being prevented by the mitral valves, the blood is projected into the aorta, and consequently impelled into all the arteries of the body. The arteries filled by this sudden push, as they cannot discharge themselves so speedily, are distended; they receive a shock, or undergo their diastole. ..... This process goes on incessantly ..... under the influence of a multitude of strokes of the heart and injections of blood. ..... The blood in the veins always and everywhere flows from less to greater branches, and from every part towards the heart; whence I gather that the whole charge which the arteries receive, and which is incessantly thrown into them, is delivered to the veins, and flows back by them to the source whence it came. In this way, indeed, is the circulation of the blood established. ..... That all this is so, sense assures us, and necessary inference from the perceptions of sense takes away all occasion for doubt." Comparing this passage with that just before quoted from Cesalpinus, there is no room to doubt which of the two authors clearly saw the truth, and gave it to the world in plain and unmistakable terms on the basis of experiment. If such teaching as Harvey's only made way through a long series of years, is it astonishing that no effect was produced by the involved sentences in which Cesalpinus gave utterance, in this matter of the circulation, to partial truths, errors of fact, and inconsistences of doctrine?

Ceradini assents to the justice of Sprengel's charge[12] of incoherence against Cesalpinus' erroneous theory of the action of the cardiac valves, and of the effect of its contraction and dilatation, and he expressly admits that Cesalpinus believed in the regurgitation of blood from the aorta towards the heart in animals in a state of wakefulness.[13]

By the admission of his greatest admirers, the works of the philosopher of Arezzo are obscure, ill-arranged, and deficient in evidence, and when they urge that his contradictions are due to the difficulty of his position in endeavouring to reconcile the teaching of Aristotle, with the tenets of the Roman Church and the operations of nature,[14]

[5] G. B. Ercolani in Carlo Ruini, op. cit., p. 52.
[6] Ceradini, op. cit., p. 234.
[7] Idem, p. 244, Quæst. Peripatet. lv., Quæst. iv., p. 123.
[8] Op. cit., pp. 249–50.
[9] Cesalp. De Plantis, ii., c. ii., p. 3. Ceradini, op. cit., p. 260.
[10] This passage is so important that I subjoin the original. I take this opportunity of expressing my indebtedness to the Rev. A. R. Vardy, who has been good enough to revise with me the passages of Cesalpinus relied on by Ceradini, and contested by such a distinguished philologist as Herr Tollin of Magdeburg: — "Cum autem in vigilia motus caloris nativi fiat extra, scilicet ad sensoria, in somno autem intra, scilicet ad cor: putandum est in vigilia multum spiritus et sanguinis ferri ad arterias, inde enim in nervos est iter. In somno autem eundem calorem per venas reverti ad cor, non per arterias; ingressus enim naturalis per venam cavam datur in cor, non per arteriam. Indicio sunt pulsus, qui expergiscentibus fiunt magni, vehementes, celeres et crebri, cum quadam vibratione; in somno autem parvi, languidi, tardi et rari. Nam in somno calor nativus minus vergit in arterias: in easdem erumpit vehementius, cum expergiscuntur. Venæ autem contrario modo se habent, nam in somno fiunt tumidiores, in vigilia exiliores, ut patet intuenti eas, quæ in manu sunt. Transit enim in somno calor nativus ex arteriis in venas per osculorum communionem, quam anastomosin vocant, et inde ad cor. Ut autem sanguinis exundatio ad superiora et retrocessus ad inferiora instar euripi manifesta est in somno et vigilia, sic non obscurus est hujusmodi motus in quacumque parte corporis vinculum adhibeatur, aut alia ratione occludantur venæ." (As quoted in Ceradini, op. cit., pp. 264-5.)

[11] The Works of William Harvey, edited for Sydenham Society by Dr. Robert Willis (London, 1847), pp. 132–4.
[12] Op. cit., pp. 248–49. [13] Op. cit., p. 273.
[14] Prof. Carlo Maggiorani, president of the Roman Academy of Medicine, thus expressed himself before the Italian Minister of Education when Cesalpin's bust was unveiled (Inaugurazione della Lapide ad Andrea Cesalpino, &c., op. cit., pp. 55–58):—"Se la lettura delle Questioni Peripatetiche riesce faticosa, e (confessiamolo pure) arriva presto a generar la stanchezza, gli è che l'Aretino recitandovi il commentatore non vi preordina la materia, non vi fila ragionamenti, non vi dispiega ampie dimostrazioni, ma si limita quasi sempre a vibrare entimemi. In un discorso intessuto di domande e risposte, è quasi necessario di studiare la brevità, e di procedere con uno stile sentenzioso; e che poi a forza di esser brevi si divenga talora oscuri appena è chi nol sappia. ..... Adunque a me par manifesto che le contradizioni dell'Autore rivellino solo questo: che non volendo mettersi in aperta ostilità cogli insegnamenti della Chiesa, rispetto all'ossessione diabolica, si acconciasse a farne l'espositore, contentandosi di lasciar trapelare di tratto in tratto da quali principi partisse, e quali opinion abbracciasse."

it is tantamount to saying, that Cesalpinus failed in a position which was indefensible and untenable; and yet Prof. Scalzi, another of the official orators in the recent ceremony in the University of Rome, thus expresses himself:[15]

"The great discovery, which was to cause a general commotion in the fields of all biological science, was announced firstly by Cesalpinus in the five books of the Peripatetics in the year 1571, with such simplicity of words, with such candid modesty, that it is not to be wondered at that it became known to very few of the learned of Italy, and only to solitary foreigners. It was a great good fortune for William Harvey, that, finding himself from 1598 to 1602 in Padua, studying medicine, he was able to learn the new doctrine from Fabrizio d'Acquapendente, whose renown as an eminent anatomist attracted students from beyond the Alps; then returning in 1602 to London, he studied to profit by the teaching received in the Paduan school, with all industry of ingenious researches, of most diligent experiments, and after seventeen long years announced it in private circles, and twenty-six years having elapsed—namely, in 1628,—printed and published it. He would have done much more to enhance his fame, which was really very great, if he had guarded himself from giving forth as the fruit of his own studies a discovery which was all Italian. Overcome by the desire to render his name famous with such a marvellous discovery, he did not hesitate to say, with as much pomp of words as Cesalpinus—of the whole the true discoverer—had said with simplicity and modesty, that he had made known to the astonished learned things which were new and not previously heard of in the scientific world."

But there is no evidence to show that, such as it was, the teaching of Cesalpinus on the circulation produced any effect whatever during his lifetime on the medical schools of Italy, to say nothing of those beyond the Alps. Scalzi admits that very few (*pochissimi*) of the learned men of Italy knew it, and yet goes on to say that Harvey was very fortunate in being in Padua from 1598 to 1602 to learn the new doctrine from the renowned Fabricius. But just as Cesalpinus knew nothing of the anatomy of the veins, so did Fabricius know nothing of their true function, and neither had he the most remote idea of a circulation of the blood, as Ceradini unreservedly admits.[16] In the declining years of his long life Cesalpinus, while residing at Rome as physician to Pope Clement VIII., published a treatise on Mineralogy; he died at the age of eighty-four in the year 1603[17]—the year after Harvey left Padua to return to London. The "Exercitatio Anatomica de Cordis et Sanguinis Motu" was published in 1628. The opposition which it encountered is notorious. If Cesalpinus had known the doctrine, and taught it, if it was known in the schools of the peninsula, how was it that none of the contemporary Italian professors who joined in the attack on the British physician charged him with publishing what had been already taught by the deceased philosopher of Arezzo? How was it that John Veslingius,[18] one of the most learned anatomists of his time (born 1598, died 1649), wrote on the "Paradoxo Harvejano," "Did any contemporary controversialist write 'de Paradoxo Cesalpiniano'? So far as my researches have extended, the answer must be in the negative; and it was only when turning on to the intricate passages of Cesalpinus' work the full blaze of light shed from Harvey's lamp, that the ingenious disputants of a succeeding generation conjectured that Cesalpinus was the real discoverer of the circulation of the blood.

It is due to the Italians to say that they have not been the only detractors, for, all circumstances considered, no one has been more unjust to William Harvey than William Hunter was. After admitting[19] that "Harvey was so happy as to discover and to prove beyond all possibility of doubt the circulation of the blood," Dr. William Hunter continues:—

"Now that so much has been said of this discovery and of its author, I may venture to make an observation or two which otherwise might have appeared invidious. Dr. Harvey, as appears by his writings, was certainly a first-rate genius for sagacity and application, and his name is deservedly immortal, on account of the many observations and improvements he made in anatomy and physiology. But in this, where he has acquired the most distinguished honours, I could almost think him entitled to the least. For the singular structure of the parts concerned in the circulation—to wit, the heart, arteries, and veins,—and the obvious phenomena in bleeding animals to death, the different effects of ligatures on different vessels, the practice of surgery with regard to bleedings and bloodvessels, the action of the heart when exposed to view in living bodies, all these, I say, so evidently proclaim the circulation, that there seems to have been nothing more required for making the discovery, than laying aside gross prejudices and considering fairly some obvious truths. It is the more amazing that this discovery was left for Harvey, when we consider that he was near a hundred years after Vesalius, in which interval many great men had appeared, and anatomical schools had flourished, in many different parts of Europe. And, what is still more astonishing, Servetus first, and Columbus afterwards, both in the times of Vesalius, had clearly given the circulation of the blood through the lungs, which we may reckon at least three-quarters of the discovery; and Cesalpinus had, many years before Harvey, published in three different works all that was wanting to Servetus to make the circulation quite complete. But Providence meant to reserve this honour for Harvey, and would not let men see what was before them, nor understand what they read."

Dr. William Hunter was undoubtedly a man of large faith, when he professed such implicit belief in the reservations of Providence on Harvey's behalf. It was because Servetus tried to reconcile the mystery of the Trinity with the laws of the organic world, it was because Cesalpinus was the sworn enemy of Galen, the enslaved admirer of Aristotle, a believer in demons and under the yoke of the tenets of the Roman Church, as then dominant, that, having seen much, they were prevented seeing more—that having caught glimpses of the truth as revealed in nature, they were prevented unveiling and seizing it as a concrete reality. It was precisely because men were blinded by prejudice that they could not see obvious truths. It was because Harvey observed patiently, and reasoned carefully, without scholastic preconceptions to cloud his vision and to distract his judgment, that he afforded a splendid illustration of the truth that "genius is but an infinite capacity of work first of all," and bequeathed to the world a work, which is a monument to his sagacity, and to experimental and inductive philosophy. If time allowed, the analysis of Harvey's treatise on the heart and blood would show how exhaustively he proved his position, how high he rose above all his contemporaries as a faithful observer and recorder of facts, as an unprejudiced and closely logical reasoner.

I admitted in the first of these fragments that Harvey imperfectly fulfilled the object set forth in the first paragraph of his introduction, and it is impossible to resist the impression that so persevering and shrewd a man learnt more from his predecessors and contemporaries than he acknow-

[15] Inaugurazione della Lapide ad Andrea Cesalpino, op. cit., pp. 18–19:—"Il gran trovato, che doveva recare un commovimento generale nei campi della scienza biologica tutta, fu annunciato primieramente dal Cesalpino nei cinque libri delle Peripatetiche l'anno 1571, con tanta semplicità di parole, con sì candida modestia, che non è da meravigliare se si rendesse noto a pochissimi dotti d'Italia e a taluno soltanto degli stranieri. Fu gran ventura per Guglielmo Harvey, che trovandosi dal 1598 al 1602 in Padova allo studio della medicina, potesse apprendere la dottrina novella da Fabrizio d'Acquapendente, al quale il grido di anatomico sommo chiamava scolari anche da oltralpe. Poi tornato l'anno 1602 in Londra sua patria, colto allora il lauro di dottore, si studiò di fecondare l'insegnamento ricevuto nella scuola patavina, con ogni industria di ingegnose ricerche, di sperimenti diligentissimi; e dopo diciasette lunghi anni lo annunciava nei circoli privati, e trascorsi ventisei anni, cioè nel 1628 solennemente lo pubblicava per mezzo della stampa. Per altro molto più avrebbe egli giovato alla sua fama, che veramente fu grandissima, se si fosse guardato di bandire quale frutto de'suoi studi un trovato che era tutto Italiano. Vinto dalla brama di rendere celebre il suo nome con scoperta così meravigliosa, non peritossi di dire con altrettanta pompa di parole, con quanta semplicità e modestia aveva usato il Cesalpino, di tutto vero ritrovatore, che egli avrebbe palesato ai dotti meravigliati cose nuove e non udite nel mondo della scienza."

[16] "Poichè è certo che fin dall' epoca in cui le aveva scoperte, Fabricio aveva detto nella scuola che funzione delle valvole nelle vene era di ritardarvi il corso centrifugo del sangue." (P. 71 of proof sheets of Ceradini's reply to Tollin and Preyer.) At p. 148 of the second edition of his oft-quoted monograph, Ceradini says, "E notissi imo del reste che Fabricio non ebbe la più lontana di una circolazione del sangue."

[17] De Metallicis Libri tres Andrea Cesalpino, amtore ad Sanctiss. Dominum nostrum Clementem VIII. Pont. Max. Romæ, ex typographia Aloysii Zannetti, 1596.

[18] Joannis Veslingi Observationes Anatomicæ et Epistolæ Medicæ, ex schaedis posthumis selectæ et editæ à Th. Bartholino Hafniæ, 1664, p. 135, de Paradoxo Harvejano.

[19] Two introductory lectures delivered by Dr. William Hunter in his last course of anatomical lectures at the theatre in Windmill-street, as they were left corrected for the press by himself. London: 1784-8, p. 42, et seq.

ledged. But the customs of the period and the circumstances of his life must be considered. The comparatively recent habit of exact references to authorities was then far from general. In Ruini's book there are no foot-notes, and scarcely an author is mentioned. Harvey refers fully to Columbus,[20] whose name is not even mentioned by his pupil and immediate successor Cesalpinus. While this philosopher, first in Pisa, and subsequently in Rome, never lacked time and resources for study, Harvey soon after his return to England became attached as physician to Charles I., and followed him in the civil wars. It was at Newbury and Edge Hill, and amid the contentions with the English Parliament, that Harvey toiled; and it is scarcely to be wondered at, that when he did produce his physiological masterpiece it lacked scholarly completeness as a record of the work of others. I cannot share the opinion of those who regard Harvey as a generous man. But beyond all question he was a shrewd one, and an untiring one. He owed much to his predecessors and to his teachers, but the world owes to him the full knowledge and demonstration of the circulation of the blood.

Cesalpinus was unquestionably a genius; but he was too essentially peripatetic, too discursive, to complete any one great work. Anatomist and botanist, mineralogist and physiologist, a doctrinal controversialist and a practising physician, ever striving to reconcile the philosophy of Aristotle[21] with the results of observation, he afforded a grand illustration of the Italian adage, "chi troppo abbraccia poco stringe." He embraced so much that he could only grasp little. How different was Harvey! Clearsighted and indefatigable, he saw the truth, and never tired in its pursuit. Speculative projects had no charm for him; he only attempted what he could accomplish, and spared no effort to achieve its mastery.

In discussing a question which has engaged the attention of so many learned men, I am far from presuming to have definitely solved it. Yet it is hoped these Historical Fragments may contribute to that end. Controversies of this kind are so frequently complicated, not rarely embittered, by personal considerations, that every endeavour has been made to criticise temperately and to judge, impartially. If injustice have anywhere been done to those from whom I have differed, sincere expression of regret is hereby tendered for unintentional wrong.

The more carefully the history of the circulation of the blood is studied, the higher does the admiration rise for the clear, dispassionate, and logical intellect of William Harvey; the stronger does the conviction grow, that the Italians have wronged him, in placing in the University of Rome a monumental inscription, claiming for Andrea Cesalpino that he knew, and demonstrated, the circulation of the blood. He did neither.

Birmingham.

THREE CASES OF HYDROPHOBIA IN GLASGOW.

THIRD CASE OF HYDROPHOBIA, IN THE WESTERN INFIRMARY.

BY ALEXANDER PATTERSON, M.D., F.R.S.E.,
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JOHN MCG——, aged thirty-one, sergeant of police, a tall, healthy-looking Highlander, came to the Western Infirmary at nine o'clock on the morning of Sept. 28th, 1876. He stated that whilst walking slowly along Argyle-street at half-past four in the morning he saw a dog—a black retriever, apparently—coming slowly along the pavement towards him, and as the animal was passing close to him he raised his left hand to his shoulder, to keep clear of the dog. The animal immediately wheeled round, and setting upon him from behind, caught his hand as it lay on the shoulder.

On uncovering his hand, two small lacerated wounds were observed over the ungual phalanx of the left thumb, one of them close to the angle of the nail; there was also a small abrasion over the middle of the metacarpal bone of the index finger. The wounds were washed with the strongest watery solution of carbolic acid, and gauze dressing applied. He told Mr. Clarke, the house-surgeon, that he dreaded taking hydrophobia, but we endeavoured to impress upon him that no such result was to be feared, talking of the matter as lightly as possible. He returned three or four times for dressing when the wounds were healed.

We heard no more of him until 6 P.M. on Sunday, the 29th of October, when a note from the Western Infirmary was handed in, informing that a patient was just brought in with supposed symptoms of hydrophobia. On reaching the hospital shortly afterwards, I found McG—— sitting in front of the ward fire, his chin resting on his breast, and his hands crossed. On asking how he felt, he looked up and held out his hand to me, saying, "Very poorly, Sir." He had a worn, dejected, and frightened look in his face, which was flushed. In answer to questions, he informed me, in a subdued tone of voice, that from the date of the receipt of the injury he had felt pain in the arm, chiefly in the wrist and elbow-joints, but took his meals regularly up to last night. Three days ago—on Thursday, the 26th—the sites of the wounds became itchy, with a peculiar sort of pain in the wound over the index finger, also in the palm of the hand. This feeling he described by saying that "he felt as if some one had drawn nettles over it." The pain in the arm increased in intensity yesterday, the 28th, when at half-past ten at night he became sick, and vomited. He fell asleep and slept soundly for about three-quarters of an hour, when he awoke in "a great fright," and slept badly the remainder of the night. On trying to take his breakfast this morning, he found that he could not swallow, and he sent for Dr. Macgill, the police surgeon, who saw him at two o'clock, and recommended him to the hospital.

On being asked if he had partaken of any food to-day, he asked, "No; why? He could swallow nothing. The poisoned spittle kept everything back." He begged to have an emetic, saying that he thought if he could vomit he should be better. On being offered a drink of water, he remarked that he "would rather not"; but, on being urged, he took the tumbler into his hand, and held it half an arm's length, looking at it steadily, and appearing as if summoning up his courage for some desperate effort for about half a minute, when he flung the hand and tumbler at his mouth, taking in a mouthful, and swallowing it with a terrible struggle. The spasm was so severe that he seemed on the point of suffocation. It passed rapidly off, and was followed by a melancholy long-drawn sigh. He seemed to be exhausted by the attempt. He was undressed, and put to bed. Pulse 95; temperature 101·1°. Urine not albuminous. He was ordered to have a hypodermic injection of morphia every four hours, and to have powdered sugar and starch placed on his tongue. It was found that this dissolved, and was swallowed without the onset of a spasm, but he soon got tired of it. The under surface of the tongue was carefully examined, but neither vesicle nor pustule was visible. During the night he complained of thirst, but, on attempting to drink, was immediately seized by spasm. He slept a little during the night in snatches of ten minutes at a time.

Oct. 30th.—9 A.M.: All the physicians and surgeons of the hospital, with the students, visited him, and saw him make an effort at swallowing some milk, which was followed by a spasmodic attack so severe that he whirled himself nearly completely out of bed, one foot reaching the floor. He was more excited after this, and requested that such a crowd be not admitted again. His wishes were attended to in this respect. He was removed to a side room, and appeared to be calmed by the change. A shudder passed over his frame on hearing a footstep along the lobby. I gave him the slipper and he passed urine freely, the sound

[20] Chapter viii.

[21] Cesalpino si fece torto anche maggiore, negando nelle questioni peripatetiche medesimam ente che nel polmone l'aria inspirata si mescolasse col sangue." (Ceradini, op. cit., p. 292.) L'argomento di Cesalpino, che una volta uscito dai vasi e sparsosi per entro ai diversi parenchima, il sangue non dovesse più trovare la forza capace di farlo riassumere nelle vene *è evidentemente assurdo*.....Cesalpino *ostinato nella persuasione della grande superiorità di Aristotele rispetto a Galeno*, tanto suda sulle opere dello Stagirita fin che trova modo di dimostrare *a forza di cavilli* che gli Aristotelici, chiamano il cuore *caput venarum*, intendevano che nelle vene il sangue movesse dalla periferia verso il cuore e non dal cuore verso la periferia, come credeva Galeno." (Ceradini, op. cit. pp. 185, 238, 239.) In charging Cesalpinus with *labouring to demonstrate by cavils*, Prof. Ceradini is urging one of the strongest pleas against his favourite author. The Italian classical dictionary, Vocabolario degli Accademici della Crusca, gives as the meaning of the verb *cavillare*, to cavil, "to invent false reasons which may have the semblance of truth." William Harvey never had recourse to such inventions.

of the falling water failing to produce any effect on him. Urine: Sp. gr. 1035; abundant sediment of urates; no albumen, but precipitates urea abundantly. Pulse 108; temperature 101°.—1 P.M.: Requested his minister to be sent for, and on first seeing him he was seized with a severe spasm, which soon passed off, when he spoke calmly of his approaching death. At 3 P.M. he absolutely refused either beef-tea or milk. Pulse 96; temperature 100°.—9 P.M.: I saw him again, and on offering him some milk he consented to try to swallow it, but on doing so the whole of the milk was violently ejected, a severe spasm following, which, on subsiding, was followed, not by the usual sigh, but by a peculiar, prolonged sound, which resembled nothing so much as the baying of a dog as heard at a distance on a calm summer night in the country. He was ordered to be placed under the influence of chloroform, and eight ounces of beef-tea and some port wine to be thrown into the stomach by the tube, which was done at 10 P.M. On recovering from the immediate effects of the chloroform he vomited everything and became wildly delirous, and the spasms recurred frequently. Wishes to leave the room, and fancies he is fighting with those around him.

31st.—1.30 A.M.: Very restless. Complains of great thirst. Continually endeavouring to cough up a fly from his throat, which, he says, is choking him. He expectorates some blood-tinged mucus. Pulse nearly 140, but difficulty encountered in reckoning on account of his extreme restlessness. Urine loaded, sp. gr. 1035, highly alkaline; no albumen; sediment, which seems to consist of urates and phosphates (chiefly the latter), and, under the microscope, triple phosphates and little globular masses (urate of soda or carbonate of lime).—2 P.M.: A decided change has taken place; patient has taken some beef-tea with little or no spasm.—6 P.M.: Requested the house-surgeon to write to his wife, and he himself wrote his name in the journal with a steady hand. Speaks cheerfully. Pulse 140; temperature 101·6°.—9 P.M.: On visiting, the house-surgeon and nurse met me in the lobby, both exclaiming that McG—— was better. On entering the side room he at once sat up in bed and held out his hand to me, saying, "I'm quite better, Sir." He reached for the drinking cup and drank freely of beef-tea without any spasm whatever. He mentioned that Dr. Macgill had been up to see him, and in the event of his recovering he was to have a month's leave, at the thought of which he seemed highly pleased. He now talked incessantly but rationally, and all appearance of dread had disappeared. Pulse 140. — Midnight: Patient again wildly delirious at times, at others rational. Asks to be tied, lest he should harm anyone near him; this, however, was not required. He says he thinks he should not have been ill had he not read of the second case at the Royal Infirmary. Pulse 150.

Nov. 1st.—Fell asleep at 4, and slept till 7, at which time he had a long epileptiform fit. At 8.30 he became gradually semi-comatose, his skin being covered with a clammy perspiration until 10 A.M., when he died.

His bowels were opened once, and he passed urine voluntarily all through the case.

The post-mortem examination took place on Nov. 2nd, at 10.30 A.M.; Dr. Dunlop, Dr. Coats, and myself being present. Every organ in the body was healthy. The brain and its membranes were slightly congested, which may have been the effect, rather than the cause, of the disease.

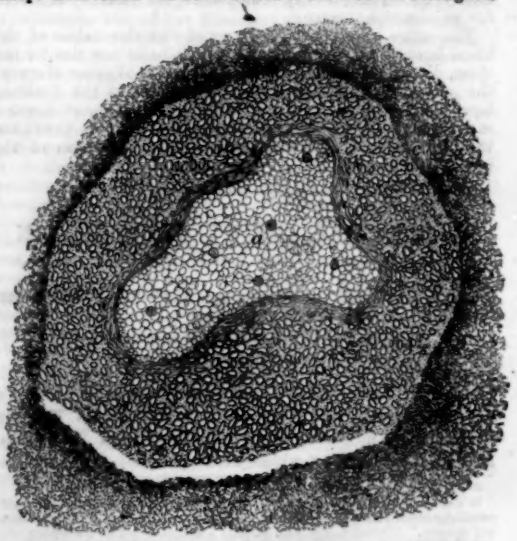
REPORT ON THE PATHOLOGY OF THE DISEASE.

BY DR. JOSEPH COATS,
PATHOLOGIST TO THE WESTERN INFIRMARY.

As the lesion found in the two cases of hydrophobia is possibly of some consequence, and as a case of hydrophobia in the dog is at present under investigation, it is proposed to embody the full results in a more purely pathological paper, where the condition of parts may be more completely illustrated. In the meantime, the general results may be given, and some reference made to the bearing these have on the pathology of the disease.

The writer made the post-mortem examination in Dr. Patterson's case, and he had the opportunity of examining the parts in Dr. Dunlop's case, through the kindness of Dr. Foulis. At the post-mortem of Dr. Patterson's case, the following conditions were noted:—There was some ecchymosis of the skin over the left costal margin. A small cicatrix existed on the dorsal aspect of the left hand over the distal extremity of the metacarpal bone of the index finger, and there were one or two small depressions slightly above this. Under the external aspect of the nail of the left thumb was some altered blood, and the nail was partially loosened. The organs of the chest and abdomen were, to all appearance, perfectly normal with the exception of slight hypostatic engorgement of the lungs. The veins of the encephalon were distended with blood, which, in the longitudinal sinus at least, was fluid. The surface of the arachnoid was smeared with blood-tinged fluid over the hemispheres, and there were a few ounces of similar fluid in the ventricles. Portions of the nervous system, the cicatrix and skin around it, with the corresponding nerve up as high as the elbow, were preserved and hardened in alcohol and chromic acid solution.

Microscopic appearances.—The cicatrix and skin around it were examined in Dr. Patterson's case, and certain parts of the nervous system in both. In the neighbourhood of the cicatrix, and for about an inch in every direction around it, the skin and subcutaneous fat presented evidence of irritation, these structures being infiltrated with round cells, which in some parts were so abundant as to have caused absorption of the fat, the adipose tissue being replaced by round cells. In addition there were some bloodvessels which contained disintegrated blood-clot, and these vessels presented a peculiar condition, which I have seen in other parts, but have been inclined to ascribe to post-mortem changes; but Dr. Thomas Reid assures me that he has often seen it in the inflamed conjunctiva when examined immediately after removal from living persons. It consists in a production of clear, transparent, globular bodies, which look like drops of an exuded fluid, just inside the bloodvessels along their internal wall. In respect to the nervous system there was found in both cases, at very frequent intervals, an accumulation of round cells in the perivascular spaces of the medium-sized vessels. In the regions affected this lesion was by no means continuous, and it also presented great varieties in degree. In some sections there were at one side of the vessel a few corpuscles lying loosely outside the wall. From this there were all degrees of the lesion, till in some specimens these bodies formed a thick mantle around the vessel, lying in masses several rows deep. This lesion was not confined to the medulla oblongata,



Lesion in the nervous system referred to in the text.—*a*, Bloodvessel containing red and a few white corpuscles. *b*, Round cells accumulated around bloodvessel. *c*, Nervous tissue.—The specimen figured here was taken from the cervical region of the cord. Here, as well as in the medulla oblongata, lesions of similar or greater intensity were frequent. The section was made after hardening in chromic acid, and was mounted in glycerine.

but existed in the cord as low down as the middle of the dorsal lesion, and in the pons and crura cerebri. In the convolutions it was only present in a very minor degree.

Besides the lesion there was a similar accumulation of round cells in the spaces around the ganglion cells. In some instances these were present in very large numbers, so as nearly to bury the cell, but in very many parts this lesion was entirely absent. The localisation of it has not yet been wrought out. In addition there were in all the parts of the nervous system examined vast numbers of amyloid bodies, but as these are so common in various diseases, I could not attach great importance to them. In only one of the numerous sections made was there any hæmorrhage discovered. There was no lesion of the nerves of the hand or arm, not even of those in the immediate neighbourhood of the cicatrix.

Remarks on the pathology of the disease.—The conditions related seem to indicate that there was a more or less persistent irritation in the neighbourhood of the scar, presumably caused by the virus introduced by the teeth of the dog. This virus had been absorbed, and the condition of the vessels near the scar, described above, may or may not be connected with this process of absorption. The so-called period of latency is probably the time during which the virus remains local, and the great differences in this period are quite consistent with what we find in other diseases. In local tuberculosis, for instance, the disease may remain local for years, or it may suddenly become generalised, and an acute tuberculosis develop, this being due to the infective material of tubercle finding its way into the general circulation. Just as tuberculosis may remain local, so, probably, may hydrophobia. But when the virus has got into the bloodvessels it will be carried to the various parts of the body. The lesions found in the nervous system in both these cases are evidence of irritation of the bloodvessels, and it is to be presumed that wherever the bloodvessels are delicate they will be similarly irritated, and give rise to similar lesions. This general irritation may explain the fever which seems to be always present in hydrophobia. It need not surprise us, supposing a lesion of this kind to exist in various organs, that the symptoms are yet mainly referable to the central nervous system. A lesion which will produce almost no effect in the liver might be a very serious one in the central nervous system. So is it, for instance, with tubercles, which may exist in myriads in the liver without any symptoms to speak of, but in the pia mater they produce tubercular meningitis. I have been therefore prepared to find lesions analogous to those in the nervous system in other organs, and I find that in the literature of the subject there are references to such lesions. I find, moreover, that in a dog which was killed because of hydrophobia, and which I have not yet fully investigated, there are lesions of a kind similar to those described in other parts as well as in the nervous system. This disease, hydrophobia, may, I think, be contrasted in its pathology with tetanus. In tetanus we have a definite irritation of the nerves connected with the injured part, and in several thoroughly investigated cases there has been an actual inflammation described. In hydrophobia the nerves do not seem to be specially involved; for, though there are abnormal sensations in the part, these appear to be rather of the nature of an indefinite stinging or peculiar feeling. In the above case the nerves of the part seemed to present nothing abnormal. Hydrophobia seems, therefore, to be rather an infective disease. The virus is introduced into the skin, and may possibly go no further, producing only irritation there. But getting into the general vascular system, it produces lesions which seem to be immediately related to the bloodvessels. These lesions in the central nervous system seem to be the causes of the peculiar symptoms in this disease.

BEQUESTS &C. TO MEDICAL CHARITIES.—Miss Baxter has given £5000 to the endowment fund of the Convalescent Hospital at Dundee, founded by her brother, the late Sir David Baxter. The Rotherham Hospital and Dispensary has received £1000 from Mr. T. Marrian, and become entitled to £1000 under the will of Mr. Liversedge. The Sheffield General Infirmary has received £630 under the will of Mr. Robert Waters. The Queen's Hospital, Birmingham, has received £220 under the will of Mr. William Dudley, and £200 under that of Mr. Thomas C. Osler. The Eastern Dispensary, Bath, has received £500 under the will of Mrs. Harrington, and £100 under that of Mr. Ripley.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. IV. Proœmium.

CHARING-CROSS HOSPITAL.

FEMORAL HERNIA, WITH A DIVERTICULUM THROUGH THE SUPERFICIAL FASCIA; STRANGULATION; OPERATION; RECOVERY. (COOPER'S HERNIA.)

(Under the care of Mr. BELLAMY.)

CASES in which the strangulation of intestine or omentum is due to the influence of some band or process of superficial fascia beyond, and external to, any one of the usual tissues forming the wall of the canal, are comparatively rare, and the diagnosis of the actual seat of stricture is thus rendered more difficult.

Mrs. W——, aged fifty-five, was admitted Jan. 4th, 1877, with all the symptoms of strangulated hernia, the reduction of which by the taxis some hours before she came to the hospital had failed. On examination, two large tumours were found in the region of the groin—one external, about as large as an orange, very tense and inflamed, with a slightly ulcerated surface; and a second tumour internal to it, situated above the symphysis pubis, and separated from the former by a deep sulcus (evidently the site of the edge of the vulval aponeurosis), which was thickened and rendered more tough and unyielding by the presence of a cicatrix which was adherent to the subjacent tissues. This cicatrix was the remains of a previous operation for strangulated hernia. Alternate pressure upon the tumours clearly showed them to be connected.

Mr. Bellamy diagnosed a femoral hernia deflected from its usual course, directly over Poupart's ligament, and which had taken a direction upwards and inwards, probably constricted by a fascial band, and evidently strangulated. However, after the amount of taxis which had been applied, he deemed it more judicious to operate at once. Chloroform being administered, he made an incision about three inches long with a bistoury directly through the tough tissues forming the sulcus, down upon the sac, which had the effect of instantly liberating the constriction and of converting the two masses into a single tumour. The inner portion of this consisted of a large knuckle of gut on the verge of strangulation, whilst the external—the one emerging from the saphenous opening—consisted of a coil of gut and a large quantity of omentum, which was highly injected. After gently attempting reduction without success, he divided the sac, from the cavity of which a large quantity of serum escaped; the bowel was then reduced partially, but it was found necessary to nick the edges both of Hey's and Gimbernat's ligaments before both gut and omentum could be entirely replaced within the abdominal cavity. There was no hæmorrhage whatever, the external wound was united with a wire stitch, a pad and spica bandage applied, and a full dose of opium administered. The next day she was very comfortable, although there had been a slight attempt at retching, and her evening temperature rose to 101°. On the 7th the temperature was normal, and she passed a natural motion.

She improved from day to day, and is now (Jan. 20th) convalescent.

GENERAL HOSPITAL, NOTTINGHAM.

ANEURISM OF THE FEMORAL ARTERY TREATED BY ESMARCH'S BANDAGE; RECOVERY.

(Under the care of Mr. THOMAS WRIGHT.)

FOR the notes of the following case we are indebted to Dr. Lewis W. Marshall, resident surgeon.

William S——, aged thirty-nine, a fitter, was admitted on Nov. 1st, 1876, with a tumour on the inside of the left thigh presenting all the signs of aneurism in Hunter's canal.

The swelling had existed six or seven months, but had not increased much in size for several months, although at first it grew very rapidly. A history of syphilis was obtained, and the exciting cause was attributed to "striking." On the same leg in the middle third was an ulcer (specific?), three inches by three inches, and unhealthy in appearance. No treatment other than absolute rest was employed for twenty-four hours, after which Carte's compressors were placed alternately on the external iliac and common femoral arteries, the patient himself attending to the instruments. The aneurism not having improved by the use of this procedure, a bag of shot, as suggested by Bellingham, of Dublin, was placed over the common femoral at 11.15 A.M. on Nov. 7th, and on the following morning the pulsation was less; the tumour was deemed to be harder. On Dec. 4th the bag of shot was omitted because the glands in the groin had become swollen and painful. No marked benefit had resulted from its use. Up to this time also the patient's diet had been restricted to the limits advised by Tufnell, but he was now ordered the usual hospital fare. The wound on the leg was also on this day grafted, but without success. For a few days diarrhœa was present, and controlled by compound kino powder.

On December 31st, at 11.15 A.M., Esmarch's bandage was applied firmly over the foot and leg; less so over the aneurism, which was now about the size of an orange; and firmly, again, on the thigh; the strong india-rubber tourniquet encircling the limb at its upper edge. Much pain was suffered, and opium was given to relieve it. The tourniquet was removed at 1.30 P.M., and the shot-bag used to control the vessel. The measurement of the thigh in circumference before the application of the bandage was 15¾ in. on the affected side, 12¾ in. on the unaffected; but on removal of the bandage at 2.30 P.M., on account of the lividity of the toes and pain, the circumference was 16¾ in. in the left thigh. The tumour was firm, with very little pulsation at the highest point of aneurismal dilatation, and the whole limb was dusky and cold. The leg was raised and enveloped in cotton-wool. Throughout the night the bag of shot was kept on the femoral at Poupart's ligament; and at 12.30 on Jan. 1st all pulsation had ceased, the measurement having increased by ¼ in. (16¾ in.). Towards evening, however, pulsation returned, and was to be felt very feebly up to the morning of the 4th. Pressure on the common femoral was discontinued on the 5th. The temperature rose to 101°, probably as a result of enlarged and painful swelling of the inguinal glands. The ulcer, which had bled and had gone back somewhat by the application of the bandage, soon returned to a healthy condition, and on the 5th was healing.

In this case, the patient was not placed in the erect posture, as advised by Mr. Wagstaffe, before covering in the aneurism with the bandage; neither was any padding placed between the surface of the tumour and the bandage. The omission was an oversight.

HÔPITAL DE LARIBOISIÈRE, PARIS.

INFRASPINOUS LUXATION OF THE HUMERUS.

(Under the care of M. TILLAUX.)

THE following case of infraspinous luxation of the humerus is worthy of record, partly from the extreme rarity of the lesion, and partly because its mechanism was established by the patient in the clearest manner. The descriptions given of this dislocation are often very meagre. Malgaigne, in his "Traité des Luxations," gives a short account of two cases. Sir Astley Cooper relates six other cases; in all his cases reduction was extremely easy. Later on, M. Sédillot, in the year 1834, presented a case of infraspinous luxation of the shoulder to the Academy, which had been mistaken for a fracture of the scapula. Another case came under the care of M. Tillaux in the year 1867. Most authors are agreed as to the mechanism of this dislocation. Sir Astley Cooper regarded it as determined by the contraction of the muscles situated in the infraspinous fossa, together with a shock on the anterior portion of the shoulder. Nélaton admits the possibility of its production by direct violence from before backwards. M. Tillaux is of opinion that it may be produced by torsion.

R. J——, aged fifty-nine, a mechanic, was admitted on December 26th, 1876, for an abscess situated under the pectoral muscle. On examination, a deformity of the right shoulder was at once detected. In the month of February, 1870, the patient was going upstairs, when he met some one who was coming down at the same time. He prepared to place himself in such a manner as to let the person pass, but in so doing his foot slipped, and he fell against the border of a step, striking the anterior part of the right shoulder. Under the right arm he was carrying a parcel, and in order not to let this fall he flexed his arm violently and brought it firmly against the thorax. This movement naturally tended to thrust the head of the humerus directly outwards. The weight of the body completed the luxation, by carrying the head directly backwards. Two hours afterwards, not being able to make use of his arm, he consulted a surgeon, who placed the arm in position by means of bandaging, but the patient could not say whether the luxation was reduced or not. Be this as it may, at the present moment there exists an infraspinous luxation of the humerus, which the patient can reduce at will by means of simple muscular contraction, and which the surgeon can reduce with the greatest facility. But the displacement returns as soon as the muscular contraction ceases. The signs are as follow. In front the infraclavicular depression is effaced. The shoulder is brought nearer to the median line, and is lowered. The anterior wall of the armpit is diminished in its vertical measurement. Outside, there is a prominence formed by the acromion, with a depression underneath. On the posterior surface of the shoulder the head of the humerus projects under the spinous process, and forms a rounded tumour. The inferior angle of the scapula is farther from the spinal column on the right side than on the left. The head of the humerus can no longer be found in the armpit. The patient has been able to make some use of his arm, having continued to carry on his occupation, but the movements are extremely limited. Elevation of the arm is impossible, but he can draw the arm to the thorax. The chief movements of this arm are situated at the elbow, and these permit of the patient making use of his limb to a certain extent.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on Friday, Jan. 26th, Mr. Callender, F.R.S., the newly-elected President, in the chair. The business of the evening included the President's opening address, and a discussion on subcutaneous section of the neck of the femur, raised by cases brought forward by Mr. Brodhurst and Mr. Croft. The attendance was fair, the surgical element being predominant. Some cases of skin disease were shown by Mr. Squire, but no remarks were made upon them.

PRESIDENT'S ADDRESS.

Gentlemen,—If an earnest desire to promote the exact observation of clinical facts should largely influence me as a member of this Society, that earnestness should be intensified by the responsibility I have incurred in venturing to accept office as your President—intensified by the knowledge that your friendly judgment has placed me in a position which demands that by precept and example I should plead for precision in clinical research. If I had only to speak to you in words of thanks, my duty would soon be ended, for I can but say that I value most highly the honour you have conferred upon me. In recalling your confidence, I shall be encouraged in the endeavour, so far as I can, to do it justice. It has, however, become a custom of the Society that your Presidents should venture from time to time to offer suggestions as to how the objects we have in view may be best promoted; a custom which it grows more difficult to observe as its novelty wears off, and yet—having in mind changes in the grooves of thought, in the

method of pursuing investigations, the gradual accumulation of facts tempering and consolidating the knowledge with which we begin each new session of work—one which it seems to me most desirable to conserve. In addresses which have been given from this chair, your Presidents, in a practical way, and with the force of experience (all the more forcible from the clear and thoughtful words in which it has been spoken), have described the duties we owe to a Society which is founded expressly for "the cultivation and promotion of practical medicine and surgery,"—words which express as could scarce any other the character and scope of our task, for they foreshadow an increase of knowledge, but, however far in advance of the past, a present knowledge which in its future must always be capable of cultivation and promotion. Our work is, indeed, bounded by a horizon which recedes before us; but, in our pursuit of it, as we ascertain and establish facts, and, so far as we can, as we eliminate sources of fallacy, we shall find that we are making progress and are strengthening our position for a further advance. If I diverge in any way from the steps of my predecessors, who have spoken chiefly on the manner in which the objects of the Society may best be attained, it will be to take advantage of the experience we have thus far acquired, not only for the evidence which it gives of the extent to which we have acted up to the expectations of our founders, but as showing the direction in which we are being carried, and in which our future work promises, I think, to give the best clinical results. We began by setting up for ourselves a high standard, and if we have not quite attained to it, we can trace through our transactions an honest endeavour to do so; and we can be sure that we have encouraged—I would venture to say we have practically established—a precision and order in the observation of clinical facts, which by itself is a substantial gain. If we look away from our more immediate proceedings, and if we remember that those who were interested in the formation of the Society are largely responsible for clinical research in our hospital wards and elsewhere, we shall recognise in every direction that an effort is being made to observe disease and its treatment in a more critical and accurate manner than heretofore. In the treatment of wounds, for example, whatever plan is followed (and many are and have been advocated), all have in common the care which conducts them, and which ensures that every detail shall be scrupulously attended to. If I may single out one fact in illustration of this, I would remind you that, after being present at and taking part in our debate on pyæmia, Mr. Cadge effected a revolution in the results of the treatment of wounds in the Norwich Hospital; above all things, by seeing that the nursing, the cleansing, and the dressings were strictly, and hence successfully, directed. I say work is more precise in hospital practice and elsewhere, for in using the latter word I would recall the fact that there are points, such as those of history and of affinity, and the close watching of disease through the course of many years, which are undoubtedly more fully and more surely elucidated in private than they can be in hospital practice; and I think the Society would gladly welcome the renewal of reports, as they may be termed, such as those brought before us by Mr. Prescott Hewett, and drawn from such experiences. Let me mention, too, in passing, and with reference to precision of observation, that by close watching of the sick we are constantly gaining information, as it were, in the by-ways of practice—not, it is true, respecting details of essential importance, and yet information which helps occasionally to stand us in good service. Of such is the fact that a rapid rise of temperature, after, for instance, an operation, may be due to emotional causes of an evanescent, and consequently of a comparatively unimportant, character, and of such is the knowledge of the exact rate of the repair of wounds, by which we can tell the time which a given surface will take to heal. Such, too (and I take shame to myself for being unable to speak with certainty on the subject), should be our knowledge respecting the asymmetry of parts, to which attention has recently been directed in America, with reference more especially to the length of limbs, a detail which all students of art are aware received attention from the ancient sculptors. But if medicine and surgery are being cultivated with greater care and precision, can it be added that we are thereby promoting our knowledge of the treatment of disease? I turn, perhaps with an undue bias, to surgery. I find that the careful supervision of operations and other wounds has proved, if rest and cleanliness and constant attention are combined, that the most serious hurts are repaired with an absolute certainty (not merely through a precarious convalescence), injuries being recovered from which some years ago would have been considered irremediable. If erysipelas, despite precautions, attaches itself to a wound, the close watching of the case now enables us to detect the earliest symptom of the disease, and twelve or twenty-four hours before the outcome of a rash, to commence the treatment of the affection. Pyæmia has been proved to be a preventable disorder. Skin-grafting—to name some of the facts brought more directly under our notice—has been introduced; Esmarch has described to us his plan for operating without loss of blood; the use of torsion as a hæmostatic; that of various antiseptics for the dressing of wounds; the subpericosteal resection, and the subcutaneous section of bones; the surgical treatment of aortic aneurism; the removal of tumours by caustic and by the elastic ligature; the surgical treatment of neuralgia and of local paralysis, have been before us, among other subjects, for consideration, and surely some of them may be regarded as representing distinct gains to our means of treating surgical affections. In nearly every instance the gain, if any, in treatment has been due to precise observation of the cause and nature of the trouble to be remedied, and to the direction of natural forces for its relief; and, as in most instances of real progress, the means used far controlling these forces, when put before us, are found to be of the most simple kind. Precise observations of the conditions which cause disease must always be a subject of great clinical importance for critical research. In this direction the study of material pathology, to a certain point, has been cultivated with success. There are, probably, no facts of greater practical moment than are such, for example, as taught us the connexion between rheumatic fever and various changes in the covering and lining of the heart; or those which throw light upon that form of embolism which results from the setting free in the circulation of small particles of fibrine. But there are inquiries beyond those which are satisfied by the examination of diseased structures—those which reach to the causes of disease,—inquiries which, amongst others, come within our province where we join hands with pathology in its experimental researches. Why, for instance, should such a degeneration of tissue arise as occurs when cancer is developed, and why should such degenerate cancer exhibit active growth? Or, what are the causes which determine the presence of tubercle? No higher duty can be ours than that which leads our inquiries in this direction, for of such causes at this time what do we really know? And how can we look—discuss each malady how we may, backwards or forwards—for any better treatment of these diseased conditions (save such as comes to us by hazard) until we have learnt more about the causes of those errors of nutrition which lie, in all probability, at the root of the mischief? By inquiries, too, directed to the causes of disease, we may expect to advance in our knowledge of that best of treatment, the preventive—the controlling of the forces of nature, so that disease may be avoided. There is also good work to be done by the study of the natural history of disease—a part of our programme which will, I trust, be attended to in our future as fairly as, perhaps even more thoroughly than, in our past proceedings. This study is, in truth, that of disease as observed under the most careful supervision, with rigid exclusion of complications from preventable external influence, that is, free from errors of management—all, in a word, that due watching, rest, cleanliness, temperature, and suitable nourishment can do, and seeing (so far as we can without risk to the patient) how disease comports itself under such conditions; clearing, in fact, the ground for precise observations of the medicinal action of drugs, and for gauging their exact effects. And this it is which must always be the great feature in our prospective work—the attainment of that knowledge of therapeutics of which, one of our Presidents told us, as a trustworthy science we have only the expectation; and of which he also said he often wondered how vaguely, how ignorantly, how rashly, drugs are often prescribed. I am far from saying that the Society might not have done more with reference to the study of the action of drugs; and yet our Transactions are not barren of laudable endea-

vours to obtain more knowledge of their influence upon disease. If it is a lesser function to discharge, we have at least sifted the reputed powers of various medicines, and have reported them as untrustworthy; and such inquiries have been illustrated by valuable experiences, and have led to interesting discussions. We may remember, indeed, that to this Society we owe the introduction of a discussion, extending over several meetings, and setting an example which has been elsewhere followed, and if it has not been so here, it is because it is in the nature of the ordinary work of the Society that the subjects brought forward at its meetings should be freely discussed; and interesting as have been many of our communications, they have often been supplemented by most valuable comments from those who have spoken upon the subjects which they illustrate. But our Transactions show a long list of trials carefully conducted to test the action of various remedies. Amongst such may be mentioned notes on the local effects of opium upon the bladder, the influence of ipecacuanha upon diarrhœa, the value of quinine in pyrexia, the use of salicylic acid and of other antiseptics, the employment of copaiba in ascites, the local effect of the hypodermic injection of strychnia, the use of bromide of potassium in epilepsy, of nitrite of amyl in angina pectoris, the action of iodide of potassium upon tumours, the employment of salicylic acid in rheumatism, cold affusion in rheumatism, and cold baths for pyrexia in phthisis. If, then, we may not have attained to much, I think these examples—and others might be added—show that an attempt is being made to investigate the action of drugs. When we reflect upon the difficulties inseparable from the work we profess—work which is strictly limited to the record of facts, and of which mere opinions form no part,—when we consider the varied phases of disease and the variable soil in which it acts, it is clear that it can only be by slow degrees that we shall attain to any fulness of knowledge of the means for combating disorders by the use of medicines. Were it not for the encouragement given by the facts thus far ascertained, which prove the influence over disease of certain remedies, and the potent action of drugs upon the healthy organs and tissues of the body, we should, I fear, be disheartened by the cloud of difficulties with which an empirical system, continued through ages, has been allowed to envelop the relations between disease and remedies for its cure. It is to remove this—to base our treatment upon facts—that we are trying to make therapeutics not an expectation, but a trustworthy science. If I may point to an example of the system on which each one of us should work, I would instance the recent appointment, by the Council, of committees for collecting on definite subjects an array of facts from which definite conclusion will be drawn. We can each, individually, cast our work in a similar mould. It must be precise, and it must be matter of fact. In this spirit we must try to learn more about the causes of disease, and we shall have a better knowledge of preventive treatment. We must endeavour to learn more about the action of drugs, and we shall know better how to cure disease. Even now there is so much of which we are ignorant, and the field of inquiry is still so vast, that there can be no question as to any dearth of material upon which to energise our work. That work must indeed have led to an infinite advance beyond our present knowledge of the art of healing before the time shall come when we may slacken in our efforts for the cultivation and promotion of practical medicine and surgery.

Dr. BURDON-SANDERSON said that having been present at the first meeting and taken some part in the foundation of the Society, it was very satisfactory to feel that the somewhat ambitious programme with which the Society started had been in some measure realised. As an illustration of the value of the light which had been thrown on the treatment of disease, the facts with regard to pyæmia were to him of especial interest. The discussion on pyæmia had led to the good results in the Norwich Hospital to which Mr. Callender referred. It was, too, satisfactory to know that they might look forward to a still more complete carrying out of the programme of the Society, and the attainment of the object of increased precision in clinical work, and in the knowledge of the effects of medicines. In conclusion, he begged to request, on behalf of the Society, that the President would permit the valuable address to be published in the Transactions.—Dr. GREENHOW briefly seconded the request, and the President gracefully assented.

A paper "On cases of Subcutaneous Section of the Neck of the Thigh-bone," by Mr. BRODHURST, was read by the Secretary. The cases were two in number; in both the right thigh was flexed on the pelvis, and the knee crossed over the opposite thigh in such a manner as to close the vagina and to interfere with the evacuation of the bladder. The limb was shortened, in one seven inches, in the other four, necessitating artificial support in walking. The first case was that of a female aged eighteen. From eight years of age hip disease existed, which led to the formation of abscess, and ultimate bony anchylosis, with flexion and adduction of the thigh. The operation of division of the neck of the femur was performed on Oct. 18th, 1864. The external incision was one inch and a quarter in length from half an inch above the great trochanter. The bone was divided immediately above the trochanter, and then, the saw being reversed, a wedge-shaped piece of bone was excised. The hæmorrhage was inconsiderable. The wound healed by first intention, and in six weeks the patient walked with help, and bore weight on the foot. Some flexion and abduction were present, and now, twelve years after the operation, there is useful motion. The second case was that of a girl sixteen years of age admitted to St. George's Hospital in January, 1872. There was firm bony anchylosis, the position of the limb being similar to that in the other case. The disease dated from seven years of age, an abscess forming at twelve, and the hip becoming stiff at fourteen. The operation was performed with a small saw, the neck of the bone cut through just above the trochanter after Mr. Adams's method, the external wound being only just large enough to admit the saw. The bone was so hard that the section took twenty minutes. Suppuration followed; but in three months the patient could walk about the ward unsupported. The author stated that he had performed eight operations of this nature; some with a small, others with a large incision; but he found that when the opening was small, stretching and bruising of the soft parts, and consequent suppuration, took place, whilst, when the incision was free, rapid healing followed. The wound might be so placed as not to correspond with the point of section of the bone, and so the subcutaneous character of the operation be preserved even with the larger opening. Where deformity persisted a piece of bone should be removed. He thought the chisel inapplicable when bony anchylosis existed, or where the bone was very solid.—The PRESIDENT observed that the subject was one which had recently interested the Society and the profession. The operation was also of use in cases of union in malposition after fracture. The question of the employment of the saw or the chisel was also of importance.

Mr. CROFT showed a case of successful Subcutaneous Section of the Thigh-bone for old anchylosis of the hip-joint. The patient, a clerk twenty-two years of age, was admitted on May 29th, 1876. He had suffered from gonorrhœa about fifteen months previously, which had rather suddenly disappeared after three months, and then pain in the hip commenced. Two months before this pain he had fallen down a flight of steps and bruised his hip. Soon after the onset of pain swelling commenced in the groin, with pain on movement of the limb, and an abscess of large size formed, which was opened in October, a large quantity of pus being evacuated, some discharge continuing till February, 1876. When admitted in May, 1876, there was extreme rotation outwards of the limb, the neck of the femur resting on the edge of the acetabulum, an angle of 140 degrees being formed by the thigh and the trunk. An attempt was made under chloroform by Mr. Croft and Mr. M'Cormac to produce some movement, but without success, showing that the anchylosis was osseous. The operation was performed on July 12th, the femur being divided *below* the trochanter, in the presence of Mr. William Adams and Mr. Gant. Division below the trochanter was selected on account of the scar over the front of the thigh, which appeared to adhere closely to the deeper parts, and would have rendered movement of the saw difficult. Antiseptic precautions were adopted during the operation and antiseptic dressings after. Much serous discharge lasted for some days, and at last the discharge became purulent, and subsequently free suppuration occurred. Free drainage was therefore used, and firm bony union at the line of section at last occurred.

The operation was, he believed, unique in the fact of subcutaneous division below the trochanter with the saw in the adult. The subsequent suppuration was also remarkable, and he believed that had the wound been firmly closed immediately after the operation suppuration would not have occurred. In reply to the President, Mr. Croft detailed the antiseptic measures employed; they were mainly those advocated by Lister.

Mr. BARWELL thought the time insufficient for the discussion of the numerous important questions raised by the papers. As regarded the employment of antiseptics, he thought them of great importance, and narrated two cases illustrative of their value, in neither of which did suppuration or pain exist. As to the choice of instruments, the saw must leave some dust, which was irritating to the wound, and liable to set up suppuration. Of Mr. Adams's twenty-two cases three died, and two or three escaped narrowly. Mr. Croft's patient had also a narrow escape. Seeing that the operation was one of convenience merely, the percentage of deaths was high, and too high, if constant, to allow of the operation being advised. But with the use of the chisel and the antiseptic method the risk was reduced to a minimum. With antiseptics the subcutaneous method need not be enforced; an inch of bone might be removed without risk. Various modes of operation had been practised. That first proposed by Reah Barton of Philadelphia, was higher than Mr. Croft's. Two years later Kearley Rogers, of New York, repeated the same operation. In 1862 and 1864 Sayre performed it with a broad saw, removing "blocks" of bone. A T shaped incision was made on the outer side of the thigh, and the periosteal chisel used. In both cases suppuration occurred. Whatever might be the ultimate result of any form of operation, its value must depend on the presence or absence of suppuration, for when it once occurred the question of life or death was a matter of chance, and beyond the control of the surgeon. The chisel might be used even when the bone was very hard.—Mr. GANT thought that the views taken by the speakers were too mechanical, the most important point being the conditions favourable to the operation. Two conditions of disease were not suitable for Adams's operation—namely, where scrofulous disease of the joint existed, and the neck of the thigh-bone was gone, or would be too little vascular to unite; the other where the neck was much enlarged by deposit due to chronic rheumatic affection. These facts had led him in 1871 to propose division of the neck just below the trochanter. In one case, of a boy, he had made a small incision with a tenotomy knife, drawn aside the muscles, and divided the bone with a small saw in two minutes. The opening closed by return of the muscles, and primary union without any suppuration was effected. In another case he had also a good result in three months; no débris worth speaking of was left by the saw. He agreed with Mr. Barwell that the result must be tested by the presence or absence of suppuration. As to the operation, neither Barton's nor Sayre's could in any sense be called subcutaneous, nor could Mr. Brodhurst's first case be called so. The saw could not be set aside for the chisel. Professor Pancoast had recently performed his (Mr. Gant's) operation, with a successful result.—Mr. MAUNDER thought that the title of Mr. Brodhurst's paper ought to be changed, his first case being in no sense subcutaneous, an incision one inch and a quarter long having been made. In the second case a piece of bone was excised; Mr. Brodhurst did not say whether that was subcutaneous, nor did he give details of the six other cases. He thought the rivalry between the chisel and saw a wholesome one. He had no special preference for either, but his opinion was that the saw would be generally employed for the section of the neck of the thigh-bone, when it was proposed to attempt to establish a false joint by simple linear section of the bone. He thought that this would ultimately be the only case in which the saw would be used, because it might, under certain ill-defined conditions, lead to suppuration. He did not consider Mr. Croft's case a favourable one of the use of the saw, the patient having suppurated almost to death. In only one out of his own eight cases had he used the saw; this operation was done in June, 1876, and the patient was not well yet. In nine cases with the chisel, suppuration had only occurred in two, the other seven healing by primary union, as after tenotomy. —Mr. FURNEAUX JORDAN stated that he was one of the first to perform subcutaneous division of the neck of the femur by Adams's method. This was in a young woman with strumous disease of old date, where great flexion and adduction of the affected limb existed. A punctured wound was made, and the neck of the bone divided with a strong saw with broad teeth. Notwithstanding the fact that the wound was a punctured one, and that a compound fracture was produced, the operation not being strictly subcutaneous, and no antiseptic precautions were used, the case did fairly well. In such a case he would now prefer to make the section below the trochanter.—Mr. BRYANT re-echoed the opinion that Mr. Brodhurst's cases could not be called subcutaneous, and in the second case Mr. Adams's operation seemed to have been carefully followed. To which class did the six other cases belong? He considered the subcutaneous operation very valuable: in four cases in which he had performed it with the saw, a good result occurred in all. No antiseptics were used; a small valvular incision was made; the operation only took two or three minutes; no suppuration occurred, and recovery was rapid. In the fifth case there was no neck to divide. When the neck exists, Adams's operation was better than division below the trochanter; if the neck were not present, Gant's or Barton's. In this case the boy was weakly, both femora were anchylosed, and the thigh at right angles with the pelvis. He used the chisel. No suppuration occurred, but the boy died of pyæmia from bedsore five weeks after the operation. The choice of chisel or saw seemed to him to depend on the fancy or whim of the surgeon.—Mr. BRODHURST thought that none of the operations could be strictly subcutaneous, and that it did not matter if the incision were one or one and a quarter inches in length. He had operated with a small wound, merely a puncture, three times. One of the cases narrated was more strictly a resection, but was of interest from having been done twelve years, and good motion existing. He had operated on nine cases in all, in three with a small incision, the others about one inch. Owing to the greater freedom of movement, no suppuration from bruising of the parts occurred when the incision was free. He thought that the removal of a wedge of bone did not materially alter the character of the operation. He had never used the chisel, but believed when the bone was hard it could not be used.—Mr. CALLENDER suggested that if the operation were called "valvular," as with the incision in the operation for loose cartilages in the knee-joint, the difficulty in the name would be got over, "subcutaneous" being certainly an incorrect definition.

MEDICAL SOCIETY OF LONDON.

AT the meeting of this Society, on Monday, Jan. 29th, Mr. Wm. Adams, President, in the chair, Dr. DOWSE read a paper "On Diphtheritic Paralysis." He spoke in reference to the history of this disease, its etiology, diagnosis, prognosis, treatment, and pathology. He collected from more recent authors their various opinions, and explained by numerous examples how insidious attacks of this form of paralysis really are. Sometimes it involves the muscles of the throat alone, at others merely the muscles regulating ocular accommodation are affected, whilst in some cases every muscle of the body is brought under its influence. Dr. Dowse said that in his experience it was impossible to state with any certainty in what patients paralysis was likely to supervene on an attack of diphtheria, and *vice versâ*, neither had he been able to trace in the constitution of patients any especial idiosyncrasy which rendered them more prone to the paralysing influence. He first spoke of the altered condition of blood in diphtheria and the relationship of the paralysis to albuminuria, the periodicity of the paralysis, its nature in reference to motion and sensation, and the migratory character of the latter, which made it to resemble in some respects hysterical paralysis. He considered, although the disease was one which usually terminated favourably, that there were four remedies of great value in treatment—namely, nutrition, rest, the injection of strychnine, and the use of the galvanic continuous current. In bad cases he invariably fed the patient repeatedly through the day by means of the nasal tube. This gave, what was of the highest importance, rest to the palsied muscles. One-twelfth to one-

sixth of a grain of strychnine was injected subcutaneously every day, and the continuous current applied to the spine and the palsied muscles. Lastly, Dr. Dowse spoke of the pathology of this disease. For his own part, he quite agreed with MM. Charcot and Vulpian, that the paralysis was more or less reflex rather than central, that an advancing neuritis extended from the nerve periphery throughout its trunk. He thought the theory quite admissible in reference to the palatine muscles, and its extension would be accounted for by the direct anatomical connexion between the sphenopalatinus and the otic and Gasserian ganglia.

THE ROYAL COLLEGE OF PHYSICIANS.

A MEETING of the College was held on Thursday, the 25th ult., when several matters of importance were under discussion.

A communication was received from the General Medical Council, asking the College whether and under what conditions it would be disposed to admit foreign graduates to examination. The President said the matter had been brought before the Censors' Board, and it was deemed undesirable to alter the existing regulations on the subject, which it was thought afford comparatively easy and convenient facilities to foreign graduates already, and the Censors' Board did not consider it advisable to suggest anything different at present.

Drs. Habershon, Barnes, Bucknill, and H. Weber were elected members of Council.

The College next considered that portion of the Council's report, the discussion on which was deferred at a previous meeting, and which related to the question of the advisability of demanding additional knowledge from candidates on the subject of psychological medicine. In the report it was pointed out that the College had already given permission to students to substitute a three months' attendance at an asylum in lieu of a like period on ordinary hospital practice, and that students also had the opportunity offered them of attending lectures on mental diseases at the medical schools; for these reasons the Council did not think it needful to take further steps in the matter. After some little discussion, in which Dr. Wilks pointed out that in deciding the matter the Council had had regard not only to the interests of the College itself, but also the present large demand made upon the student's time and working powers, the College approved the decision of the Council.

A report by the Leprosy Committee on the therapeutic value of the "cashew" and "gurjun" oil treatments of leprosy was adopted by the College and ordered to be forwarded to Lord Carnarvon and the India Office for their information. The report stated that as regards the "Beauparthuy" system of treatment, or that by cashew oil, the conclusions drawn by Dr. Gavin Milroy, as the result of his personal investigations in the West Indies, still represent the best information on the subject. These conclusions were to the effect that the remedy diminishes or disperses for a time the local tubercular formations, especially in the earliest stages of the disease, but that the coincident general improvement is in great measure due to the hygienic measures and liberal allowance of fresh food prescribed at the same time, and that there is no proof that the oil is capable of effecting a decided cure. As regards gurjun oil, the College consider it a remedy of considerable efficacy in modifying local conditions, and apparently in improving the general health of the leper, but they affirm that in the case of cashew oil there is no sufficient evidence to show that it possesses any real curative properties. The report concludes with a most important recommendation, which runs as follows:—"The College is of opinion that in many cases in which medicines have been used with *apparent* good effect, the favourable result has really been due in great measure, if not entirely, to the improved general hygienic conditions in which lepers have been placed; and the College would strongly urge that the attention of Government should be specially directed to this important consideration. *It decidedly recommends that lepers should be placed under the immediate charge of the Government in hospitals or asylums properly provided for that purpose, and in which they should receive adequate attention so far as concerns the observance of cleanliness, and the provision of proper food, clothing, fresh air, regular exercise and occupation, and where the real value of any system of treatment, such as those under consideration, might be submitted to careful investigation under the observance of competent medical men.*" The italics are ours. A second report on a kindred topic was referred back again to the Leprosy Committee for additional report.

The College decided that a new Roll should be published.

The subjoined report from the Nomenclature Committee was received and adopted. It is understood that the work of preparing a new edition will be forthwith commenced. "The first edition of the work, which occupied twelve years in its preparation, is stated on its title-page to be subject to decennial revision; the period therefore of the issue of a revised edition would, in the opinion of the original Committee, be reached at no distant period. The entire copy of the work being, however, almost exhausted, the Committee has made inquiry as to the cost of issuing a reprint to meet the requirements of the profession during the interval, but the cost of the limited number of copies which it would be prudent to print during the preparation of a revised edition precludes the Committee from recommending the College to adopt this course. Under the circumstances, and in the interest of the public, the Committee recommend that a new and revised edition should be prepared without delay; that a Committee should be appointed by the College, the following names being recommended in the first instance, power being given to the Committee to add the names of those who, in their opinion, may render valuable assistance in the preparation of the work. Suggested Committee: The President, Drs. Peacock, Wilks, Bristowe, Radcliffe, Barclay, Bucknill, and Barnes; the President of the Royal College of Surgeons, or his representative; Sir Joseph Fayrer, President of the Medical Board of the India Office; the Directors-General of the Medical Departments of the Army and Navy, or their representatives; Dr. Farr; the Registrars-General for Scotland and Ireland, or their representatives; Messrs. Simon, Holmes, and Hutchinson, and Drs. Balfour, Fagge, Payne, and Galabin."

New Inventions.

NEW TRACHEOTOMY TUBE.

WE have been shown an improved tracheotomy tube, as depicted below. The alleged advantages of this tube are—(1) that there is only one expanding outer tube (to take inner cannulas of three sizes), which forms the pilot; (2) that by one turn of a screw which is fixed to the shield, the two sides of the pilot will collapse so closely together that one incision with the knife into the trachea is sufficient to allow the tube or pilot to pass readily; (3) that when in use the inner tube can be easily removed, without disturbing the patient or outer tube or pilot. It has, we believe,

been successfully used by Mr. Wagstaffe, of St. Thomas's Hospital, in several cases, and is manufactured by Messrs. Walters and Co., of 12, Palace-road, opposite St. Thomas's Hospital.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 3, 1877.

THE MEDICAL ASPECTS OF INTEMPERANCE.

WE have before us the full and revised report of the Medical Conference on the Suppression of Intemperance, convened by the Church of England Temperance Society. Dr. ACLAND presided. A paper was read by Dr. B. W. RICHARDSON, and the meeting was addressed by Professor ROLLESTON, Dr. LEWIS, Dr. WARD, Mr. SANKEY, Medical Superintendent of the Oxford Lunatic Asylum, and others whose scientific or professional opinions are of weight. We confess to taking up this report with a good deal of interest. The "world" is in "a pet of temperance," and a very good "pet" it is, and one that shall have no discouragement from us. The party which has the great credit of having roused British opinion to some adequate sense of the urgency of this question is disposed to show no quarter to the article alcohol. It is only evil, in every form, to all persons, of all ages. It in no way helps in the removal of disease. Syncope, hæmorrhage, fever, the ordeal of great operations, are no justifications for administering it, for do not persons emerge from all these states all the more quickly and surely when alcohol in every form is withheld? If it be said that these are the views of only lay persons, or of uninfluential and unscientific physicians, it is not so. At this very conference Dr. RICHARDSON summed up his researches by saying that in its action on the living body alcohol "deranges the constitution of the blood, unduly excites the heart and respiration, paralyses the minute bloodvessels, increases and decreases, according to the degree of its application, the functions of the digestive organs, of the liver, and of the kidneys, disturbs the regularity of nervous action, lowers the animal temperature, and lessens the muscular power." This is not a soft impeachment, proceeding, as it does, from one who has studied "alcohols" in all forms more perhaps than any physiologist or physician living. Perhaps, it may be said, he has some qualification to offer, some good effects to set off against these bad ones. Let us hear the witness on this point. "It will be asked, was there no evidence of any useful service rendered by the agent in the midst of so much obvious bad service? I answer to that question that there was no such evidence whatever, and there is none." Our readers will remember the papers by Dr. RICHARDSON in the early numbers of THE LANCET last year, in which he opposed powerfully the administration of alcohol in states of asthenia, hæmorrhage, &c. Such are the views of Dr. RICHARDSON; and Prof. ROLLESTON, who heard him, said that he thought he never listened to him with greater pleasure, nor heard him speak to better purpose. He followed Dr. RICHARDSON in heartily supporting, as a public measure, the Permissive Bill. Dr. ACLAND seemed to go further than either, and to hope for, not a Permissive, but a Prohibitive Bill. In the course of his observations, Dr. ACLAND referred to the important views and labours of PARKES on this subject, and stated that for fourteen years he had never tasted alcohol. This statement would be most forcible if Dr. PARKES were still alive; but it has less weight in the light of his death, which was sadly too early. Dr. ACLAND said that he himself had come to the conclusion, from such observations as he had been able to make during many years, that a large proportion of healthy persons, except under special circumstances, were not so well if they took any form of alcohol as they were if they took none. As regards its use in disease, Dr. ACLAND justly described the reaction from the excessive use of alcohol twenty years ago, and said that it had become a matter of extreme anxiety to the best instructed members of the profession as to what was the precise dose which ought to be given in many conditions.

We are not going to throw cold water on the movement in favour of temperance. We think with much satisfaction of many a contribution to the cause supplied by us from facts and arguments of a medical sort. We are delighted when medical men of standing open their mouths publicly in support of those who are striving to abate, if not to abolish, the most discreditable and the most disastrous vice of this country. At a moment when men of every class and calling are feeling the urgency of this question, and are eager to be right upon it, it would be strange indeed if the medical profession or its organs were to be silent. It is not necessary for us to go so far as Dr. RICHARDSON does. We are not prepared to say that all the forms of disease in hospitals, "gout, paralysis, albuminuria, apoplexy, delirium tremens, enfeebled heart, eczema, epilepsy, consumption (in some phases of that disease at least), liver disease or cirrhosis, dropsy—to say nothing of other maladies under dispute as to their origin,—do truly indicate no more than various forms of disease originating in one agency, to which those afflicted have been directly or indirectly subjected!" This is a little too sweeping. But we implore statesmen and public men to remember that there is an enormous amount of disease and physical degeneration traceable to this vice, which is favoured and encouraged rather than otherwise by existing legislation. The vice vitiates the very national vote on public affairs. It might especially do so if any direct question of its suppression were raised. There is the more need that measures short of this should be considered amongst the most urgent questions for the consideration of the Legislature. The unchecked epidemics, the law's delay and inefficiency, are not more serious than this vice of drunkenness. Any statesman who would reduce the amount of drink consumed by half, who would close public-houses till after breakfast, or, better still, till dinner-time, would do more to sweeten and prolong life than has been achieved by legislation since the removal of the duty on corn. Meantime let there be no mistake about the voice of medical practitioners or authorities on this matter. It is on the side of temperance—of extreme temperance. Anything else is risky. A fine constitution may resist a large quantity of alcohol—we have all known striking instances,—but he is a foolish person that proceeds on the supposition that he has a fine constitution. In the case of most people the body is a very exquisite alcoholometer; its structures are changed by it—vital glands, like the liver and kidney, bloodvessels, joints; digestion, appetite, and sleep are impaired; youthfulness is

abridged, and age is accelerated; muscle is replaced by fat, and mental activity by sloth. To appeal from medical facts to medical men, we are bold to say that the example of the profession and of its authoritative members is in favour of a minimum quantity of alcohol in health and a very regulated quantity in disease. We have more than once appealed to the College of Physicians to make a representation on this subject to the Government. We should be extremely pleased to hear that our appeal was under the favourable consideration of the College, which could not better employ its special knowledge and influence.

Two important papers on Bacteria have just appeared in Prof. COHN's "Beiträge." The first is by COHN himself, and is entitled "Further Researches into the History of the Bacteria." It has been well extracted by Mr. J. BELL in the current number of the *Quarterly Journal of Microscopical Science*. The second is by Dr. KOCH "On the Etiology of Splenic Fever." Prof. COHN observes that the supporters of the theory of spontaneous generation had practically arrived at the conclusion that substances exposed to the temperature of boiling water are no longer capable of producing living matter. The experiments of BASTIAN, PASTEUR, SCHROEDER, and others, have, however, sufficiently demonstrated the incorrectness of this statement. Even in regard to peas COHN relates that manufacturers of pots of preserved vegetables at Lübeck have since 1858 been obliged to cook them in a solution of 28 per cent. of salt at a temperature of 226° F. to prevent the putrefaction of their contents, as in warm years nearly half of the pots were found to be spoiled. In France a temperature of 240° F., without salt, has been found satisfactory. COHN believes that in these instances the peas or pulse-seeds, being bad conductors of heat, do not allow the bacteria hidden in clefts and corners of their substance to rise to the surrounding temperature, and hence, unless the exposure has been protracted, the retention of their vital powers. In fact, in experiments made in conjunction with Dr. HARE to settle this point, COHN found that in infusions boiled for less than fifteen minutes organisms were without exception developed. Somewhat lower temperatures proved fatal to the great majority of bacteria. Those that survive were all found to belong to the genus Bacillus, and among bacilli to the species Bacillus subtilis.

The investigations of KOCH were directed to the etiology of splenic fever, and COHN, on examining his specimens, found that they were examples of the species called Bacillus anthracis, which seems to present little or no difference from the Bacillus subtilis of hay infusions. KOCH finds that bacilli increase with enormous rapidity in the blood, and in the fluids of the tissues of living animals, by developing in length and dividing transversely. The animals employed were chiefly mice, and a small incision being made at the root of the tail, as minute a drop as possible of the fluid containing the bacilli was injected into the system. The spleen invariably became enormously swollen, and filled with a large number of crystalline-looking rods of varying size, never exhibiting movement or spore formation; they increased in number solely by division. The number of bacilli found in the blood varies in different animals; thus, in the guinea-pig it was enormous, sometimes exceeding that of the blood-corpuscles; in the rabbit much smaller, so that sometimes several drops had to be examined before any were found; in the mouse often *nil*. In the blood of dead animals, or other suitable fluids, the bacilli grow to very long straight leptothrix-like filaments (within certain limits of temperature, and with the presence of air), while the formation of numerous spores goes on at the same time. It is to the presence of the spores that the occurrence of splenic fever appears to be referable. When living, inoculation with them always produced the disease; but if killed, as by drying, or a high temperature, inoculation failed; it was necessary either that living spores should be present, or that the filaments should be capable of generating spores, in order that the disease should be propagated by inoculation. KOCH tried whether the poisonous bacilli spores could gain entrance through the digestive organs, but found that mice and rabbits could eat them with impunity.

KOCH draws attention to the similarity of splenic fever to typhus and cholera. It presents analogies to typhus in its dependence on soil-water, its preference for low ground, its sporadic occurrence throughout the year, and its development into an epidemic in the late summer and autumn. Like cholera, again, it is connected with soil-water, and it also agrees with cholera in the point which has been so well made out by PETTENKOFER, that on board-ship an interval of three or four weeks is sufficient to prevent its further development. Hence KOCH is disposed to hope that the contagium of typhus and of cholera may still be discovered in the form of some schizophyte or spheroidal bacterium, though practised observers have hitherto sought for them in vain.

IN the January number of *Macmillan's Magazine* is a very interesting article by the Right Hon. LYON PLAYFAIR, contrasting the effect of the education offered by the Scotch and German Universities with that presented at the Universities of Cambridge and Oxford. He shows that the latter "have always held general culture as their main end," whilst the former unite "culture with technical training." He then proceeds to urge that this is the essential duty of universities, and that in any projected reforms of Oxford and Cambridge these should extend their benefits to all classes of the community, on the Scotch and German basis, and so enable men to more completely adapt their culture to their life-work. The large number of medical men who have obtained their education in Scotch universities in comparison with those who have graduated in England is taken as a striking instance in point, and it is to this part of the article that we shall confine our remarks. We find that, according to Dr. MORGAN's statistics, which we believe to be quite correct, in England only 4 or 5 per cent. of medical practitioners are graduates of an English university, whilst in England nearly 20 per cent., and in Scotland nearly 66 per cent., have Scotch degrees. These figures are very striking, and at first sight conclusive of the great advantages of the Scotch educational system, when opposed to the influence of our own universities on our special profession. But there are some considerations which must not be lost sight of before we come to such a conclusion. If we grant Dr. PLAYFAIR's arguments as applied to the influence

of university life on the cultivation of German science and German medicine, we must point out a cardinal distinction between the German and the Scotch systems. In Germany the licence to practise is not conferred by the university, but by the State, whilst in Scotland the attainment of a degree is sufficient to place a medical graduate on the Medical Register. "Study for knowledge and not for examination distinguishes the German from the English universities," says Dr. L. PLAYFAIR; and we would add in a greater degree also does it distinguish them from the Scotch universities, for in these the degrees are necessarily the aim of the student's aspirations, and the outcome of his labours. The Scotch medical student at a university passes a preliminary examination, somewhat more severe than that required by the English licensing bodies, but not more difficult than that for the Fellowship of our Royal College of Surgeons. He consequently need not, and, in fact, very generally does not, attend the lectures of the professors in Arts and Philosophy, and consequently only secures such a limited university training as the Faculty of Medicine affords. He does not require a degree in arts or laws, and the preliminary examination of any corporate body (not necessarily a university) may be substituted for that of the university, provided that it comprises the same subjects. Where, then, is the "infusion of liberal and scientific culture into the occupations of a people" which is pointed out as being so peculiar to Scotland? Again, the English medical schools are so differently constituted from the Scotch that we at once see the reason why so many of the best-educated practitioners across the border are university graduates, whilst in this country these are relatively so few. In England the schools which train our medical candidates are very numerous, and are attached to every large hospital in the metropolis and to many in the provinces; whilst in Scotland the whole of the medical teaching is concentrated, and is in the hands of the University professors, and a few extra-academical teachers, whose lectures are not recognised, in Edinburgh at least, if a lower fee be charged than by the university professor of the same subject. Is there really any very great difference between the university course in Scotland and such a course as can be attended at any of our best metropolitan schools, not to mention Owens, University, and King's Colleges, where most other branches of knowledge are taught side by side with medicine, as in the Scotch universities? The University of London recognises only eight medical institutions in Scotland from which it receives certificates, whilst in England nearly forty, and in Ireland seventeen, are thus qualified. Freedom of choice of places for medical study is much greater in England, and as most of them can give no degree, the number of university graduates is less, but the culture of the profession does not suffer nearly as much as would be supposed from the tenour of Dr. LYON PLAYFAIR'S reasoning. That Cambridge and Oxford might bring their studies to bear more closely on medicine, with great advantage to themselves and to our profession, we have always believed, but that there would be any very great advantage by their copying the Scotch or even the German method, is extremely doubtful, and they will always have formidable competitors for the suffrages of medical students, even of the best type, in our old-established medical schools, to which the Scotch medical system affords no parallel. Technical education is of a better type when grafted on a basis of liberal culture, than when an effort is made to cultivate them simultaneously.

As an Admiralty Committee is still inquiring into the cause of the existence of scurvy in the Arctic Expedition, and so the question may be considered as *sub judice*, it is not our intention to comment specially upon the action of the individuals concerned in the inquiry. But we may very fairly review once more the medical and hygienic aspects of the subject; for if this be not done connectively and persistently until the verdict of the Committee is presented to Parliament, there is some fear that the faith of many men, commercial and nautical, may be shaken as to the efficacy of the anti-scorbutic that has stood us in such good stead during the last half century.

It is to be observed that Sir GEORGE NARES, in two or three later speeches made by him at festive gatherings, has allowed facts connected with the outbreak of scurvy to leak out in a very gentle, but continual, stream. And we are now, by quoting the gallant Captain, enabled to state in effect that the Medical Director-General of the Navy did give explicit instructions in writing as to including lime-juice in the sledging scale of diet, that the senior medical officer of the *Alert* did recommend its use as a ration on these sledging parties, but that the Commander took upon himself the responsibility of ignoring these recommendations, and, as he himself owns, thus terminating prematurely the career of the expedition. We do not care to dispute the assertion of Sir G. NARES that the object of the expedition has been accomplished. But even if that were the case, the mortality and misery caused by the outbreak of scurvy must surely have some momentous aspects in the minds of those directly or indirectly concerned. It is very important to note that darkness and excessive labour, and consequent fatigue, have been suggested as proximate causes of the outbreak. We shall await with some curiosity the evidence adduced as to the former of these propositions, and we disposed of the latter some three weeks ago. We shall hail the advent of the Committee's report with great satisfaction, because, as we hope and believe, it will enable us to give in chapter and verse the honour due to the medical officers of the Arctic Expedition.

Annotations.

"Ne quid nimis."

THE CLINICAL SOCIETY.

THOSE who read the report of the meeting of the Clinical Society last week will, we think, be struck with the apparent discrepancy between the theory of the Society, as shown in the President's address, and its practice, as illustrated by the discussion on subcutaneous section of the neck of the femur.

The address of the newly-elected President is an admirable summary of the work which has been done by this Society during the few years of its existence. Mr. Callender very justly claimed for the Society some merit in the advancement of clinical and therapeutic knowledge and of increased precision in research. It must be confessed that

the Society has adopted a somewhat utilitarian creed; that, with the exception of being the means of recording some striking and anomalous cases of disease, the greater part of its more valuable work has been in the investigation of therapeutic and operative treatment, and in this sense it claims to be regarded as an eminently practical and useful Society. But, as Mr. Callender justly pointed out, this should not be the sole and chief aim of its work. The study of the natural history of disease, the investigation of the variations and complications of ordinary diseases, the influence upon them of mere rest and good hygienic conditions, are of essential importance in determining the value of drugs in their treatment. We trust that the thoughtful observations of the President will tend to lead the Society into such a sphere of work during his term of office.

But, as if to set off by contrast that which is least likely to promote the interests of the Society, the remainder of the evening was devoted to a discussion which can scarcely be regarded as other than a waste of time. The subject of subcutaneous section of the neck of the thigh-bone is really being worn almost threadbare. It has already been thoroughly discussed at the Clinical Society at a comparatively recent date, and during the present session it has occupied the time of the Medico-Chirurgical, Medical, and Harveian Societies. On all these occasions almost the same set of speakers have expressed their views, and the same cases have been exhibited and referred to again and again. The subject is doubtless an important one, and the operation has but recently come much into vogue, especially since the introduction of Volkmann's chisel. There is, too, some variety of opinion as to the best method of performing the operation and the instrument to be employed, and it is certainly desirable that evidence should be collected on the respective merits of each. But when the value of the operation is admitted, the cases in which it may be performed with a prospect of success pretty fairly understood, and the dangers to be guarded against generally agreed upon, it becomes a question to be decided only by experience, whether this or that instrument shall be employed. All are agreed that section of the neck of the femur is an allowable and often successful operation, that it may be done rapidly and easily with either saw or chisel, and that as little disturbance of the parts around, and as little entrance of air as possible, are objects to be sought. There remain the questions, whether antiseptics are desirable or necessary, and whether the saw or the chisel is to be used. The former is but a part of the wider question of the employment of the antiseptic method in operations in general. If the operation is, as it is called, "subcutaneous," every one knows that certain subcutaneous operations heal by first intention; but yet if, as the antiseptists aver, their method allows major operations to be done with as little risk as if subcutaneous, there can be no question that it is desirable, if it is not absolutely essential, to employ it in this operation. There remains, then, the question whether the saw or the chisel is to be used—a veritable *reductio ad absurdum*; and on this momentous question we are to believe that the surgical world is as profoundly agitated as the religious world of the middle ages by the controversies of the schoolmen. One surgeon brings forward successes with the chisel, another successes with the saw and failures with the chisel; and one by one, as operations are performed, they are brought forward to prove the value of one or other method. As in all operations, each surgeon has his own opinion of the best instrument to effect his purpose, and that which is successful in one hand is a failure in another, and every man will be guided by his own experience or predilection in the matter. But the point is one which can only be decided by experience in a far larger number of cases than have yet been recorded, and until it can be shown by extended statistics that dangers attending the use of one instrument are avoided by the use of the other, the repeated discussion of the ideal merits of each is sheer waste of time and breath. It will be a matter for more than regret if the time of the Clinical Society is often occupied by such fruitless discussions.

LONDON WATER-SUPPLY.

MR. CROSS'S reply to the deputation that waited on him last Monday with reference to the London Water-supply, although it cannot be considered satisfactory, leaves the door open for hope. The London Water Companies have, during the last few years, taken advantage of the largely increased value of property to raise the rates, and consequently to improve considerably their ratios of dividend; whilst little or nothing has been done by the majority of them to improve the water supplied by them either in respect of quality or quantity. To take the West Middlesex Company, for instance, which has benefited largely by the increased assessment of house property. This Company, for the last two years, has paid a dividend at the rate of 9¾ per cent. per annum, yet it still supplies its customers with water drawn from a polluted source—the Thames,—and, as far as we can learn, has no intention of seeking elsewhere for a purer supply. During the last few weeks, owing to the floods, the condition of the water supplied by the Companies who draw from the Thames has frequently been unfit for drinking purposes, containing often as much as *six times* the amount of organic impurity as the excellent water supplied by the Kent Company to the south-eastern suburbs. It is altogether monstrous that the residents of the West-end should have to drink the diluted sewage of Molesey and Hampton, whilst the Company which purveys this beverage is, with the exception of the New River Company, the richest of the rich Water Companies. What is wanted is that Government should insist on the western Companies going to unpolluted sources for their supply, let the fulfilment of this condition cost what it may. Meanwhile, the alternative proposal, that public authorities should assume the business of water-supply—a course of policy we have persistently advocated,—ripens, and the logic of events points more strongly than ever to this solution of a problem which in a serious sense concerns the future of public health.

TYPHUS IN CHELSEA.

THE last three Weekly Returns of the Registrar-General have noted the fatal results of a remarkable outbreak of typhus in Chelsea. The deaths of six residents of Oakham-street, and of one person living in Wickham-place, were referred to this disease in the three weeks; of these seven deaths, three were recorded in the Stockwell Fever Hospital, two in St. George's Hospital, and two in the houses in which the deceased patients resided. More than twenty cases of typhus have been reported in or in immediate proximity to Oakham-street. This outbreak of malignant disease, distressing as are its immediate consequences to the sufferers and those dependent upon them as bread-winners, will probably confer an ultimate benefit upon the sanitary condition of the neighbourhood. Since the outbreak, the Chelsea vestry, as the local sanitary authority, the medical officer of health, the nuisance inspectors, and the inspector of lodging-houses, have awakened to an abnormal state of energy and activity. It is discovered that the condition of the houses in Oakham-street and Wickham-place is both filthy and unwholesome, and is dangerous to health. It is eminently satisfactory to learn that two of the owners of the property in question were

summoned at the Westminster Police-court on the 25th ult., under the provisions of the Sanitary Act of 1866. In one case the owner pleaded, that "when the complaint was made, men were put to work, and the houses were now in a proper state of repair." He was, however, fined 30*s*., in addition to two guineas for costs. In the other case the defendant, who did not attend, appears to own ten houses in Wickham-place, some of which were declared to be quite unfit for habitation; and it was stated that the defendant had previously been summoned on account of the condition of the houses. In defence, it was, as usual, urged that the tenants were dirty, and that it was impossible to keep the houses in repair; the defendant was, however, sentenced to fines and costs amounting in all to £14 10*s*. It is not altogether satisfactory to feel that, under the present want of sanitary organisation in the metropolis, an outbreak of malignant typhus is necessary to induce our sanitary authorities to take earnest action to clear out such a fever nest as appears to have existed in the heart of Chelsea. Such incidents as this typhus outbreak in Chelsea only, however, serve to strengthen the evidence afforded by the inaction of the metropolitan sanitary authorities during the small-pox epidemic, that sanitation in London needs organisation and a controlling representative authority.

CURE OF ANEURISM BY COMPLETE TEMPORARY PRESSURE.

IN this week's "Mirror of Hospital Practice" we publish the notes of an interesting case of aneurism of that portion of the femoral artery situated in Hunter's canal, treated by Mr. Thomas Wright, at the General Hospital, Nottingham, by means of the elastic bandage. As this case differs in many respects from those on which we commented a fortnight ago, it will be well to discuss some of its details. Curiously enough, the experience of this case confirms in a great measure the criticism of Mr. McGill, which we published last week. The facts of Mr. Wright's case are briefly as follows:—A man, aged thirty-nine, affected with syphilis, was admitted into the hospital on the 1st of November with an aneurism of the femoral artery of six months' duration. Nothing beyond rest in bed was attempted for a day or two, and then a Carte's compressor was applied for several days to the external iliac and common femoral arteries, but without much apparent benefit. From November 7th to December 4th a shot-bag was more or less constantly applied to the femoral artery, the diet in the meantime having been restricted according to the recommendation of Mr. Tufnell. No marked benefit having accrued from these modes of treatment, the elastic bandage was applied from the foot to the upper part of the thigh, and a stout india-rubber tourniquet fixed round the limb above the bandage, at 11.15 A.M. on December 31st. At 1.30 P.M. the tourniquet was removed and a shot-bag was placed over the line of the vessel, but the bandage was allowed to remain in position. At 2.30 P.M., when the bandage was removed, the tumour was found to be firm, the pulsation to have ceased except at the upper part, and the circumferential measurement of the limb to have increased seven-eighths of an inch. As a precautionary measure the application of the shot-bag was continued. At 12.30 P.M. next day all pulsation of the tumour had ceased, but returned again in the evening, and continued feebly until January 4th. On January 5th pressure over the artery was discontinued, and the case was practically cured.

The progress of this case renders it extremely probable that the mode of cure was by the deposition of laminated fibrine within the sac, the return of the pulsation and its continuance for several days proving that the main vesse leading into the sac had not been completely plugged by the pressure of the bandage. But in the cases of popliteal aneurism it was distinctly stated that there was no return of pulsation, and the dissection of Dr. Reid's case showed that cure had taken place by plugging of the afferent vessel and the organisation of the clot. There was, on the other hand, no evidence that after the pressure there was any deposition of fibrinous lamina within the sac, or any vascular connexion between the old previously-formed layers and the large amorphous non-laminated clot which had formed at the time of the application of pressure. We may, therefore, conclude that the cure of an aneurism may take place by both methods, the difference in situation probably accounting for the difference in behaviour.

In the exception which Mr. McGill makes to the statement that "the elastic bandage is the only method (except injection of hæmostatics) which confessedly aims at the formation of passive blood-clots," he does not seem to distinguish clearly between the complete arrest of all the circulation in a limb by means of the elastic bandage, and the arrest of the circulation through a portion of the main vessel by the application of temporary compression or of a temporary or permanent ligature.

However applied, the compression of the main artery only does not control the collateral and anastomotic circulation, and does not, therefore, prevent the flow of a certain quantity of slowly-moving blood through the sac; whereas the total compression by means of the elastic bandage allows, under favourable circumstances, not only of the coagulation of the blood left within the sac of the aneurism but also of the formation of a firm clot within the artery leading into the sac, which afterwards becomes connected with the walls of the vessel by organisation.

INFECTION ON BOARD THE "SERAPIS."

THE *Serapis* arrived at Portsmouth with troops from Bombay, and the yellow flag flying to the fore. Two men had been attacked with small-pox after leaving India, and were landed at Malta; but the infection spread, and by time the ship reached England three men and three the children had died. It will be remembered that when this ship was fitted out for the Prince of Wales, special sanitary precautions were taken to protect all on board from the dangers of an epidemic. The "Disinfector and Sanitary Works Company" provided this ship with no less than thirty-two patent disinfectors, and it might have been imagined that this would have at least mitigated the severity of the outbreak. Most of our readers are probably aware that the patent in question consists of a simple apparatus, which is placed under the seats of closets and supplies a certain quantity of Condy's fluid whenever the ordinary handle is lifted for the purpose of flushing the pan. By this means not only is the pan disinfected, but the sewer gases, it is supposed, are purified as they ascend through the trap and the diluted potassium permanganate it contains. In all cases the Admiralty repose considerable faith in the efficiency of this system, and they have incurred the expense of providing thirty-two of Her Majesty's ships, not to mention the Royal yachts, with the patent disinfector. Under these circumstances we thought fit to inquire whether the persons interested in this patent could account for the spread of small-pox on board the *Serapis*, notwithstanding the use of their disinfector; and we were informed that, though the ship was still supplied with the apparatus, there was not a drop of disinfecting fluid on board!

It is assuredly impossible to conceive a more absurd case of neglect. If the apparatus was of so much service during the Prince of Wales's journey, its efficiency might have been maintained for the preservation of the lives of our troops.

But it appears other similar instances have occurred. The Admiralty object to the comparatively trivial cost of replenishing the disinfector with Condy's fluid. In some ships it has been diluted with two and three times as much water, thus rendering its efficacy very doubtful indeed. The apparatus holds one gallon of the fluid, can be used 950 times before it need be replenished, and the cost (retail) of refilling amounts to five shillings. The authorities on board some ships have sought, however, to avoid altogether this expense by placing a large quantity of potassium permanganate in the ordinary tanks which supply the closets with water. As a natural result, the solution corroded the iron, and the tanks began to leek; and thus mistaken economy has necessitated an outlay larger than any saving it was possible to realise. These incidents are strikingly illustrative of a short-sighted and inconsistent policy. Assuredly if it was worth while furnishing so many ships with these disinfectors, they should have been maintained in working order; and a paltry economy is no excuse for discarding precautions which are believed to be efficacious. If economy we must have, the only logical economy is that of not purchasing the apparatus at all; but we might as well dispatch our ships to war without ammunition on board as use the disinfector without disinfecting fluid in it!

MORTALITY IN WORKHOUSE HOSPITALS.

RETURNS issued monthly by the Local Government Board have in recent years shown a marked and steady decline in the proportion of paupers in England and Wales. This decline has been exhibited in the proportion both of in-door and out-door paupers, but more especially of the latter class. It is doubtful, however, whether there is not something deceptive in this large apparent decline in pauperism. Take the metropolis, for instance, where the decline of paupers, especially of out-door paupers, has been particularly marked: it appears that during the last three months of 1876, no less than 2236 deaths were recorded within workhouse establishments, equal to 11·9 per cent. of the total deaths registered in London; whereas the average number of inmates of our workhouse establishments seldom now much exceeds 2 per cent. of the metropolitan population. It is at first sight somewhat startling to find that about twelve per cent. of the population of the City, reputed to be the richest in the world, die as paupers. The larger portion of those who die in workhouse establishments contrive to keep their heads above pauperism only so long as they are in health, and become dependent upon their parish or union whenever their health fails. Workhouses in recent years have, in a great measure, become pauper hospitals, instead of remaining, as they formerly were, asylums for the aged, indigent, and indolent. The restriction of out-door relief has the natural tendency to drive the sick poor into the workhouse infirmary, and there can be little doubt that this course is more beneficial to the sick pauper than out-door treatment on a parish allowance. The large and increasing proportion of workhouse deaths in London, be its cause what it may, makes it very desirable, however, that more information should be available as to the mortality in workhouses. The average number of inmates of these institutions gives but little real insight into the amount of pauperism. Beyond the number of permanent pauper inmates, it is necessary to know the number of admissions, discharged recovered, and deaths among the temporary paupers, as in the case of ordinary hospitals. The number and class of nurses, and the amount of medical supervision in these workhouse hospitals, in which 2236 deaths occurred in the last quarter of 1876, also become important. The proportion of deaths in workhouses in Manchester during the same period was 12·3 per cent., whereas in seventeen other large English towns it ranged from 3·6 per cent. in Leeds, to 7·8 and 8·3 in Wolverhampton and Salford. It would be interesting to know whether these proportions fairly represent the relative extent of pauperism in these towns, or whether the proportion of out-door relief in cases of sickness varies considerably.

WHOOPING-COUGH.

WHAT is whooping-cough? is a question which has often been asked, but few of the answers which have been given have been either clear or conclusive. An explanation, which has at any rate the merit of clearness, was offered by M. Gueneau de Mussy to the Académie de Médecine at a late meeting. He presented some pathological specimens collected by an old pupil, M. Parinaud, who, in two post-mortem examinations which he had made on children dying from whooping-cough, had found an enlargement of the tracheo-bronchial glands, comprising the pneumogastric and its bronchial branches. The theory of M. Gueneau de Mussy is that the malady is essentially an affection of these glands, a "bronchial adenopathy," as he terms it, and he states that in enlargement of the glands due to other causes a pertussoid cough has been always noted. By this theory he explains why the spasmodic cough only comes on during the second or third week, after the so-called catarrhal period, which M. Gueneau de Mussy would term the exanthematic period; why the characteristic cough persists during months or even years; and why, the glandular enlargements which have imperfectly subsided having a great tendency to recur, a catarrh or an attack of measles may provoke a recurrence of the special cough in a child convalescent from pertussis. Lastly, it explains why the spasmodic cough may be absent in pertussis, as M. Gueneau de Mussy has observed, under circumstances where there was reason to believe that an attack of the disease actually occurred. In such a case he supposes that the glandular enlargement was slight, or was so placed as not to press upon the pneumogastric nerves. This affection of the glands he believes to be secondary to an internal eruption, and the disease to be primarily "an eruptive fever with exanthematic, or rather enanthematic, manifestations in the mucous membrane of the bronchial tubes."

Many objections to the theory are obvious enough, and some of them were suggested in the discussion which followed M. Gueneau de Mussy's communication. M. Colin pointed out that the frequent enlargement of these glands from morbid states of the lungs should entail a pertussoid cough as the accompaniment of many diseases in which it is quite absent, and M. Hardy objected that if glandular enlargement caused whooping-cough it should be found in every case of the disease, while it is the exception rather than the rule to meet with it. He further instanced the occasional rapid subsidence of whooping-cough on change of residence, and the amelioration produced by compressed air, as incompatible with the theory. M. Blot could not understand how a permanent lesion like glandular enlargement could cause an intermitting cough, and believed that there must be another intermitting element in its production; while M. Woillez asked how the contagiousness of whooping-cough on this theory could be accounted for. To these objections it was replied by M. Gueneau de Mussy, that the glandular enlargement had not been found because it had not been looked for; and he had found it during an epidemic of whooping-cough in every case in which a post-mortem examination had been made. The effect of change of air on the disease was more readily explicable on the theory that it caused a diminution in the size of the glands than by any other theory. An inter-

mittent effect often resulted from the action of a continuous cause, while the contagious character of the disease was in harmony with its supposed character as a bronchial exanthem. The nature of the irritation produced, which resulted in the attacks of spasmodic cough, he did not attempt to explain.

The gravest objection to the theory, and one which to us appears fatal to it, is that the pertussoid cough does not occur with any frequency in diseases in which the pneumogastric nerve is compressed. There is little real analogy between the effects of that compression and the phenomena of whooping-cough. Moreover, enlargement of the glands is certainly common enough without any cough having an analogy to the special form. The theory is attractive in its clearness, but we fear that a satisfactory explanation of the disease has still to be given.

THE CLERGY AND SANITARY REFORM.

IT would be an encouraging sign of the times to see the parish clergyman and doctor heartily working together for a common object. Time was when the church did not impress upon the people by precept or example the truth of that proverb which is the foremost text in the gospel of health—viz., that cleanliness is next to godliness. The middle ages were, we may be sure, the dirty as well as the dark ages; and the odour of sanctity was too often connected with other odours and evils which would now be legally suppressed as public nuisances. Then, again, low and silly views were entertained in regard to man's body; the theory of asceticism being utterly opposed to the ideal "a sound mind in a sound body,"—the latter being considered as a condition of the former. Nor has the medical profession always been greatly in advance of the rest of the world in this respect; here and there a man stood apart a pioneer of sanitary science and common sense, but the crowd eagerly sought after cures and remedies for diseases, the causes of which were "about their bed and about their paths."

And, in the same way, there have always been some among the clergy who recognised that a disregard of the laws of health and decency was a fruitful source of immorality and crime. There is every reason why the clergy and the medical profession should co-operate in this matter. Dean Stanley, in his excellent speech at the Society of Arts last Saturday, introductory to a course of lectures on the Laws of Health, by Dr. Corfield, made some interesting remarks on the relation of the clergy to this subject. The Dean adverted to an incident of the eighteenth century, which was not, he said, without its significance. He remembered once seeing an old woman, eighty years of age, who spoke to him about John Wesley. She referred to the only occasion on which she had seen Wesley, when she was a child of eleven. She described how there came into the cottage where she lived a fine little man with a clear voice and long white hair. There was fever in the cottage; and she told him how Wesley had tucked up his shirt-sleeves, opened the windows, emptied the dirty water, and "converted" the whole house. That was Wesley's idea of sanitary reform, and that was one of the chief ways in which he had carried on the evangelisation of the country. The Dean then referred to his own father, who, before he became bishop of Norwich, was the pastor, for thirty-two years, of a small parish in Cheshire, and used to ride about on a little pony and carry gingerbread and cakes in his pockets to give to any children who came out that had clean hands and clean faces, which was, the Dean observed, a very good way of promoting sanitary ideas. He then dwelt upon the enthusiastic services in this direction rendered by as true-hearted and manly a Christian clergyman as the Church of England ever had—viz., Charles Kingsley; and Dean Stanley in that broad, charitable, unsectarian spirit which is one of his chief characteristics, specially dwelt upon the fact that this was a subject which any clergyman of any denomination might advocate. He quoted from a sermon of a Presbyterian clergyman the following remark:—"There is no sect and no party in mathematics; so also there is no sect and no party about fever, or filthy dwellings, or bad air."

THE PARIS MEDICAL SOCIETIES.

THE annual general meetings of some of the medical societies of Paris were held recently. At the Academy of Medicine, on January 16th, M. Gosselin presiding, the awards were made for the different prize essays contributed to this important body; the essays in question being those sent in for competition in 1875. The Academy prize of 1000 francs, for the best essay on the Treatment of Aneurism by the different forms of Compression, was not awarded; two essays were sent in, and an honorarium of 800 francs awarded to the author of one of them, Dr. Louis Pize, of Montélimar. The Portal prize of 2000 francs, for a memoir on any subject whatever of pathological anatomy, was awarded to Dr. Hayem, of the Faculty of Medicine, who took for his thesis "Researches on the Pathological Anatomy of Muscular Atrophies." For the De Civrieux prize (of 900 francs) on Insomnia, six candidates competed; the prize itself was not awarded, but 500 francs were bestowed on Dr. Guipon of Laon, and sums of 200 francs respectively to Dr. Marvaud of Mascara (Algeria), and Dr. Willemin of Vichy. The Capuron prize of 3000 francs, for which four competed, was awarded to Dr. Michel Peter for his memoir on Pregnancy and Diseases of the Heart. The Barbier prize of 3000 francs, to be given, according to the will of the testator, to him who should have discovered complete means of cure for diseases hitherto regarded as incurable, as hydrophobia, cancer, epilepsy, scrofula, typhus, cholera, &c., brought up as many as eight competitors, to one of whom, Dr. Moncoq, a solatium of 1000 francs was given for his apparatus for immediate transfusion of blood. Seven essays competed for the Godard prize (1000 francs) in Surgical Pathology. It was gained by Dr. Charles Mauriac for his essay on "Psoriasis of the Tongue and Buccal Mucous Membrane," and honourable mention was made of M. P. Olivier's memoir on Osseous Tumours of the Nasal Fossæ and Sinuses of the Face. The Amussat prize of 1000 francs, for a work on anatomical and experimental researches, aiding in the progress of surgical therapeutics, was not awarded; one essay was received. The Lefévre prize of 3000 francs, for a memoir on Melancholia in its relations with General Paralysis, was awarded to Dr. Auguste Voisin, of La Salpétrière Hospital, and L. Burlureaux of Versailles. The Argenteuil prize of 8000 francs, which is awarded every six years to the author of the most notable improvement in the curative measures of stricture of the urethra, or partially to the author of the best means for improvement in the treatment of other diseases of the urinary passages, was divided as follows:—5000 francs to M. Duplay for his work on Perineo-scrotal Hypospadias, and its surgical treatment; 1500 francs to Dr. Squire, of New York, for his vertebrated prostatic catheter; and a like sum to M. Benas, of Paris, for his modification in the construction of filiform bougies.

At the Surgical Society M. Houel presided, and a tribute to the memory of Giraldès was paid by M. Guyon in one of those *éloges* which are so peculiar a feature of French associations. The Duval prize was awarded to M. Courty, for his work on the Entrance of Air into the Veins; and the Laborie prize to M. Poinsot, for a memoir on Surgical In-

terference in complete Luxations of the Ankle; honourable mention being made of M. Langet for his Essay on Congenital Encephalocele.

At the Anatomical Society, on the 12th ult., M. Charcot was re-elected president for a second term of two years; *Eloges* were delivered by M. Liouville on Prof. Béhier, and by M. Despres on M. Parmentier, after which the Society settled down to its routine of morbid anatomy. It appears that financially this useful Society is not yet in a very good position.

ON THE POSITION OF DENTAL SURGERY CONSIDERED IN ITS SOCIAL AND ETHICAL ASPECTS.

AT a recent meeting of the Association of Surgeons practising Dental Surgery Mr. Hamilton Cartwright read a paper on the above subject. He accurately expressed the opinions of many educated medical men, who, having devoted themselves to the study of dental disease, feel that their social and professional status is most unjustly tarnished in the eyes of the non-professional world by the illicit practices of those who, having no connexion with them in any way whatever, bring discredit upon the name of "dentist." He particularly alluded to those disgraceful advertisements which are so commonly found in even the most respectable journals. Several of these have lately come under our notice, and we are concerned that editors, in heedlessly inserting them, do not appreciate the fact that they are indirectly accessory to a series of frauds, practised upon a credulous public. The authors of these mendacious puffs profess themselves to be the originators of the greatest scientific discoveries, or disseminate fictitious testimonials as to their capacity. They have long professed to be able to perform work which those most respected in the profession upon which they obtrude themselves cannot accomplish, and have lately taken upon themselves to boast of their special methods of administering anæsthetics. We know of no anæsthetic agent which is incapable of doing harm, if not of actually destroying life, in unpractised hands. Mr. Cartwright is to be congratulated on the delivery of an address evidently prompted by a spirit of reform. He has vindicated the claims and aspirations of a numerous body of educated gentlemen who have devoted themselves to the specialty, amongst whom, we may here observe, are four Fellows of the Royal Society. The Association of Surgeons practising Dental Surgery has made an auspicious entrance into public life, and we are hopeful of its prosperity and of the good which it will accomplish.

OUR MEAT SUPPLIES.

WE should do very badly if we depended on our own cattle supply for the "roast beef of old England." The question is one of great importance, seeing that cattle plague is stated to have occurred in the metropolis. Attempts have been made again and again to introduce meat into this country from abroad, but with a small measure of success hitherto. There is generally an insipidity about preserved tinned meats, to say nothing of their being innutritious when consumed for any length of time, that will always prevent them from taking the place of fresh meat. The Australian preserved meats, for example, taste juiceless and overdone. Meanwhile, the price of butcher's meat in this country has been steadily increasing, and so many interests are bound up with the meat monopoly that we are very doubtful whether, in the ever-recurring contest between the meat-consumer and the butcher, the latter will not have the best of it. There is a good deal of promise, however, in the new system of importation of American meat, and we cordially wish it every success. It is yearly becoming more and more a national question how our requirements are to be met. Spite of the resources of America, we may be said to be threatened with starvation in the midst of plenty. It certainly appears strange that practically no one should have hitherto succeeded in bringing down the price of meat by utilising the vast herds of cattle roaming the grazing States of America, and we await the results of the latest enterprising experiments in this direction with considerable interest. Meat is now brought across the Atlantic to Glasgow and Liverpool in clipper ships in very large quantities, preserved in chambers specially fitted for the purpose, the temperature of which is kept evenly and artificially low by large supplies of ice shipped on board vessels belonging to certain lines. The saving in our hospital expenditure alone by cheap meat would be enormous. The consumption of meat is yearly increasing among all classes. Mr. Bright, speaking of the advantages that had accrued from free trade, higher wages, and other changes, expressed his conviction that if a number of the labouring classes were now put into the scales and weighed they would weigh more than a similar number did some years ago. There are certainly abundant signs of the increase and greater diffusion of wealth in this country and of the enormously increased prosperity of the working classes; and, considering the exigencies of society, it is questionable whether the very poor should not be sought for among the families of persons with incomes varying from £500 to £1000 per annum. What a blessing, then, would cheap meat be to households of the professional and middle classes of this country!

LIVERPOOL ROYAL INFIRMARY.

THE proposal to alter the laws regulating the election of honorary medical officers to the Liverpool Infirmary, which we characterised last week as an attempt likely to prove most injurious to the welfare of the institution, has happily, so far, not been effected, and we trust the good sense of the majority of the governing body will prevent the consummation of such a change. The annual meeting of the trustees of the infirmary was held on Monday last, a newspaper report of which is now before us, when the following memorial, signed by life members and subscribers, was presented:—"That, in the opinion of your memorialists, the time has arrived for a change in the mode of appointing medical officers, for the following amongst other reasons: The popular vote, as now practised, is not the best plan for selecting the fittest person. The present plan may be used for religious, political, or national purposes. That the candidates are put to great expense. That improper influence is brought to bear on tradesmen and others to induce subscribers to vote or abstain from voting. That to be solicited at all is unpleasant to a large body of subscribers. That the committee ought to have the appointment of all medical officers, because it is a body of gentlemen in such a position and with such information as enables the best appointment to be made. That such a body can calmly and with independence sift the qualifications of applicants, and appoint accordingly; whereas the popular judgment cannot be, and is not, arrived at with calmness and independence. That laws which may have worked well a hundred years ago under totally different circumstances must give way to the exigencies of the present day."

A good deal of discussion thereupon ensued, amongst which we distinguish a very sensible and practical speech against the prayer of the memorialists by Mr. Alderman Hall, while Drs. Waters and Turnbull urged cogent reasons against the adoption of the proposal. Eventually the meeting was adjourned to the 26th of February, when the subject will be again considered. We reiterate our belief that the true interests of the Royal Infirmary will be preju-

dicially affected should the innovation proposed be accomplished, and must also express some surprise that so determined an attempt was made on Monday to carry a measure well known to be obnoxious and distasteful to the entire Medical Board.

THE CHEMISTRY OF PERITONEAL EFFUSIONS.

IN a recent communication to the Académie de Médecine, M. Méhu described the results of some investigations into the chemical composition of various fluid effusions into the peritoneal cavity. He found that ascitic liquids contain the same organic elements as the serum of the blood, the proportion of albuminous matter varying, however, largely, but never exceeding that which is contained in an equal weight of blood-serum. The liquids are generally alkaline to test paper. Of two hundred liquids examined the author only met with one which had an acid reaction, and it possessed special properties. The mixture of fibrin and "serin" contained in ascites is coagulated by acetic acid, nitric acid, bichloride of mercury, and by sulphate of magnesia, just as is the serum of blood, pleuritic liquid, and the contents of a hydrocele. The solid matter contained in one kilogramme of ascitic liquid never exceeds seventy grammes or falls below fourteen grammes. Thus the proportion of organic matters may be the same as that of an equal volume of blood-serum, or it may be only the tenth part of this. The quantity of inorganic salts is subject to slight variations, being generally 7·9 grammes in each kilogramme of liquid. M. Méhu has found that liquids containing only a smaller quantity of solid constituent are re-formed more quickly than those which contain a larger quantity, and in general the prognosis is worse in cases in which the fluid contains little than in those in which it contains much solid. It was found that the liquid of an ovarian cyst contained a large quantity of solid matter, and the ascitic effusion from solid tumours pressing on the portal vein contained a larger quantity than those which resulted from disease or general dropsy. Almost all the liquids due to cancerous tumours had an icteric tint, and contained bile, and this the author noticed also in cases of cirrhosis of the liver. He believed that in many, although not in all, cases, the chemical analysis of the liquid is evidence of its origin in an ovarian cyst, or in the peritoneal cavity.

THE VENTILATION OF HER MAJESTY'S SHIPS.

THE naval and military intelligence of our daily contemporaries very frequently tells us that serious defects exist in the ventilation of this ship, that the heat in the engine-room of that ship is unendurable, and so on. In consequence of the absence of any sanitary officer in the Construction Department of the Admiralty, these defects, as we have on many occasions pointed out, are discovered after the vessel is built and commissioned, and, of course, after some of the inmates have suffered severely in health and comfort. We may take two examples, reported in *The Times* within the past few weeks. It was reported at Whitehall, as long ago as the 8th of December, that the stoke-hole of a particular man-of-war was insufficiently ventilated, and that the thermometer in it, while the vessel was under steam, rose to 138° F. Although the ship has just been commissioned for the West Coast of Africa, no notice was taken of the circumstance until some few days since, when the assistant engineer to the Surveyor of Dockyards was sent down from the Admiralty to Devonport to improve the ventilation of the stoke-hole. As a practical consequence, the ship will be detained for some weeks, although the work might have been completed long ago.

The troop-ship *Assistance*, the special arrangements of which were commented on in THE LANCET about two years ago, is found to be defective in precisely the same particular, and so hatches have been cut through her lower deck to improve the stoke-hole ventilation. A great deal of care and attention was bestowed upon this transport, which was fitted out at Blackwall by Messrs. Green, the eminent shipowners; but the composite character of the ventilating arrangements, and their complexity, showed that the sanitary fixtures formed no part of the ship's original design, but were added (certainly with great care and ingenuity) long after the framework of the ship was completed, and so, of necessity, in a very fragmentary way. But until "my Lords" see the wisdom of attaching a skilled sanitary officer to the Construction Department of the Admiralty this unsatisfactory condition of things will continue, and the nation has to pay for it, both in men and money.

THE "GROCERS' LICENCE."

THERE is a matter of great moment to which we would again call the attention of reformers. We allude to the facilities for *secret* tippling afforded by a grocers' licence. It is strange that, at a time when the evils consequent upon promiscuous drinking are fully recognised, and restrictions upon the open traffic in intoxicating beverages have been vexatiously multiplied, an entirely new and needless source of social mischief should have been created. These grocers' licences are the cause of more degrading and permanently injurious tippling than the open beer-shops. Women who would not cross the threshold of a public-house have no hesitation in procuring drink at the local grocer's where a "bottle" can be kept on draught either by the tradesman, who naturally desires to increase his business, and has no compunction as to occasionally "treating" his customers, or by the latter at their own cost. Servants obtain supplies of gin and beer for their private use when they visit "the grocer's" on their employer's account. It is often charged under some less alarming item in the bill. Nor is this, perhaps, the worst evil. Women far above servants in social position, wives and daughters, mothers of families and elder children, obtain bottles of brandy, gin, and sherry from the convenient shop, when these drinks could not be procured from the wine-merchant, and would not be purchased at a licensed victualler's. This is a very serious matter, and it is one in respect to which action should be taken without delay. The facts need to be brought plainly before the public, and peremptorily under the consideration of the Legislature, in order that a pernicious system of licensed tippling may be promptly put down.

THE WIMBLEDON WATER-SUPPLY.

THE ratepayers of Wimbledon, as represented in their local board, undismayed by the summary vengeance dealt by the Southwark and Vauxhall Water Company on Richmond for presuming to provide itself with a pure water-supply, are still proposing in earnest to emancipate themselves from dependence on that company for their water. At a recent meeting of the local board, Mr. Homersham, C.E., submitted an exhaustive report upon the best means for obtaining a pure and abundant supply of water for the parish; the report embodied the results of investigations he was instructed by the board to make six months ago. The report recommends that the supply should be derived from a well sunk in the chalk at Wallington, about four miles from the district boundary, and pumped into a reservoir at Woodcote, 200 feet above the highest level on the common. The water, which is declared to be of excellent potable quality, has sixteen degrees of hardness, twelve of which could, however, be removed by Clark's softening process. The initial cost of obtaining this supply

is estimated at £55,000, and the revenue at £3000, which would be sufficient to pay 5½ per cent. upon the outlay. Mr. Homersham naturally insists on the immeasurably superior quality of water obtained from subterranean chalk strata, compared with that derived from the Thames, polluted "by a million slop-pails." Mr. Homersham's project is on many grounds a tempting one to the ratepayers of Wimbledon.

A PECULIAR MEDICAL CHARGE DISALLOWED.

MR. SHARP, medical practitioner in Cullen, lately sued Charles Petrie for £35 2s. 6d. for medical attendance on defender's sister. The attendance consisted of twenty-five visits to the patient, whose legs were ulcerated, and whose house was full of the most astonishing abominations, through which Mr. Sharp had to make his way, and which, indeed, he assisted in clearing out. The patient's house was four or five miles from Cullen. We have not room for the astounding description of dirt and filth with which the house was filled. Mr. Sharp's charges were partly for "assisting in clearing out the abominations in the house." In the course of his services he incurred pruritus. Only two witnesses were examined for the defender, both medical men, who testified that the charges were excessive; with more force they added that it was no part of a medical man's duty to clean out a patient's house. This is a service clearly not contemplated in the expression "professional aid" of the Medical Act. But this objection is purely legal. There is little doubt that the wretched woman would never have been made comfortable but for Mr. Sharp's superintendence of the process, and that his charges for the filthy duties which he imposed upon himself were altogether inadequate to reward him for what he did and suffered. Sheriff Gordon allowed Mr. Sharp only at the rate of fifteen shillings a visit, and found him "liable to the defender in expense of process." There is little encouragement in legal decisions for medical men going beyond the sharp line of their duties, which they are constantly impelled to do as practical men and from humane motives. We regret that two medical brethren should have been the "only witnesses" against charges not immoderate in the circumstances.

PROVIDENT DISPENSARIES.

AN important change has been proposed in the constitution of the Haverstock Hill Provident Dispensary, to the effect that free members, above the age of fourteen, may be allowed to qualify themselves as voters at the election of medical officers, by subscribing five shillings a year to the honorary fund at one payment, or by instalments. It is further proposed that the free members so subscribing to the honorary fund shall be represented on the committee of management and at the general meetings by some of their number; what that number shall be, and the mode of their election, to be determined at the annual general meeting. These proposals were carried unanimously at a meeting of the free members of the dispensary, presided over by Dr. John Ford Anderson. Letters were read from some of the honorary members, expressing, in some instances, doubt or disapproval of these changes. We are open to light upon this important subject, but, so far as we can judge, the proposals are entirely commendable, and must appear so to all who wish to encourage the independence of the working classes, and to see provident dispensaries more generous towards their medical attendants than hitherto. This particular institution has been most successful. It has now a membership of about 4000, including 1260 adults. It has done great good, both in itself, and as an example. It will do further service if it can introduce reasonable improvements, consistent with the harmony now existing between honorary and free members, tending to increase the interest of the free members in the dispensary, and in generous provision for its needs.

UNRECOGNISED INSANITY.

ANOTHER painful case of suicide "while in an unsound state of mind" has occurred, and again in a class where little difficulty could have existed in preventing the fatal act, if the real nature of the mental state had been recognised, or, being suspected, properly treated. A lady, lamenting acutely the loss of her husband, and obviously in a desponding or depressed condition, is left without protection. Apparently no one concerned realised the true position of affairs, and no effectual measures were applied. It is the mistaken notion that there is no method of treating these deplorable cases except placing them under the ban of "lunacy," which throws an insuperable obstacle in the way of early treatment. Again we assert, the evil must prevail, easily curable cases will become incurable, the victims of morbid despair or secret delusions will die, until the profession generally reclaims for itself a department of medicine which ought never to have been allowed to slip out of its hands. A practical acquaintance with diseases affecting the mind is as essential as any other branch of knowledge. The instant recognition and treatment of mind symptoms is even more important than the prompt diagnosis of physical maladies; and every practitioner should be prepared not only to discover the mental state, but to apply the appropriate remedy.

HEALTH OF THE POPE.

OUR Roman correspondent writes:—Like the majority of Romans, the Pope has suffered greatly from the extreme fall of temperature. On the 24th ult., while giving an audience, he laboured so evidently under catarrh with hoarseness, amounting at times to positive aphonia, that Cardinal Bilio begged him to withdraw to his apartments. This the Pope did, and Dr. Ceccarelli, who saw him shortly afterwards, counselled him to keep his bed till the symptoms had abated. Next morning, however, he rose, said mass, and gave an audience, but had again to take to bed shortly after three o'clock. The cough continued to harass him, and, on two occasions since, in attempting to receive visitors, the cerebral congestion induced by the coughing brought on a fit of vertigo with unconsciousness, which necessitated his withdrawal to his apartments. There, however, he continued to transact business, and had audiences of Cardinal Simeoni, his Secretary of State. He is now restored to his usual health, and has given orders for the reception of the French pilgrims who have come to Rome expressly to do him homage.

SANITATION AT RICHMOND.

A CORRESPONDENT informs us that the sewage scheme of Richmond and other parishes, if carried out as at present contemplated, will compel the removal of the troops from Hounslow. To be brief, the land intended to receive the sewage is table land, much higher than the Powder Mills and Barracks. The mills are in a hole at the head of the valley formed by this high land, on which these sewage works are proposed to be erected. The constant fires, furnaces, charcoal retorts, &c., independently of 300 to 400 men and women being constantly employed, raise the temperature round the works, which will naturally draw the heavily-charged atmosphere into the valley; the heat engendered by 500 horses, besides officers, men, and camp followers, in the barracks at the end of this valley will cause a vacuum which will be filled up with the sewage atmo-

sphere drawn over the mills. The warm southerly winds which prevail through the summer and autumn months will greatly assist to keep up a supply of foul gases for the barracks, which are already condemned. The new ones in course of erection will share the same fate if the sewage is allowed to be utilised in Hanworth or New Hampton.

THE "SLADE" FIASCO.

THE same authority who asserted that "it would be bad for the coo" if a cow happened to get on the rails in front of a train travelling at the speed of forty miles an hour, is reported to have expressed some fear of what might occur if a small pebble lodged on the metals. A very small obstacle, the omission of two words, seemingly unimportant, in the indictment sent up from Bow-street, has sufficed to throw the case against "Dr." Slade, the "medium," off the line, and the prosecution must be commenced *de novo*. This is, in a few words, what has happened. The legal machinery has failed. It remains to be seen whether in retracking the course the difficulty which has for the time postponed a final judgment can be avoided. The common-sense view of the case, with which alone the public has any practical concern, is, of course, unaffected by the legal "incident."

OPEN SPACES.

THE need of open spaces in great cities and densely-populated districts is so urgent that a ceaseless endeavour must be made to secure adequate provision of the class in, at least, the most crowded neighbourhoods. We hear of disused burial-grounds which might be utilised. Considering the immense sanitary and moral benefits which must accrue from the preservation of local air-spaces, it will surely be possible to appropriate these grounds. The tombs and tombstones might be removed, mural brasses being substituted, and over a layer of concrete, covered with five or six inches of earth, turf could be laid. We trust steps will be taken without delay in this direction. The clergy might help the movement by giving it the sanction of their support. The disgraceful condition of too many of the burial-grounds around London is as offensive to good taste and disrespectful to the memory of the dead as this beneficial use of lands now lying waste would be commendable and grateful.

"A CASE FOR THE CROWN."

UNDER this heading we last week expressed a strong opinion that the case of McConnon, the soldier then lying under sentence of death for killing a comrade while in confinement for drink—victim and murderer both being drunk—called for the revision of the Crown. It is with great satisfaction we are now able to record that action has been taken in the matter, and the convict is reprieved. It is under a sense of grave responsibility that a medical journal intervenes in a matter of this nature, and it is satisfactory to find that the Secretary of State is disposed to treat with consideration the arguments advanced for his review.

SIR W. FERGUSSON.

SIR WILLIAM FERGUSSON has lately been suffering from a return of some distressing symptoms resulting from his chronic renal disease. There has been of late increasing weakness, with difficulty of breathing, and, consequently, disturbed and restless nights. These symptoms, we regret to learn, are now causing much distress to the patient and considerable anxiety and alarm to his numerous friends. Sir George Burrows and Dr. George Johnson are in constant attendance upon their friend.

THE HEALTH OF GARIBALDI.

A CORRESPONDENT writes from Caprera:—I hear that General Garibaldi has had a severe accession of the rheumatic pains from which he is a chronic sufferer. At one time there were alarming cardiac symptoms, accompanied by marked failure of the pulse and general prostration. But the heart's action was restored, and the General is now enjoying a respite from the more urgent phases of his invalid condition.

A ROYAL EXAMPLE.

WE are very glad to be able to announce at the present time, when so much ignorance and prejudice prevail in regard to the obvious duty of everyone to do his best to limit the spread of small-pox, that the Prince and Princess of Wales and the Royal children have quite recently been vaccinated. By command of their Royal Highnesses all the members of the household, both at Marlborough House and Sandringham, have also been vaccinated.

IN the annual report of the sanitary condition of the Woking district for the past year, Mr. T. Cawley Eager calls attention to the defective state of the drainage and of the water-supply at Woking station and Knaphill. Houses are being rapidly built at both these places with an utter disregard of ordinary sanitary requirements. The medical officer of health, in the course of his duties, has opened wells at Woking station, into which it was found that sewage matter emptied itself, while in many cases the privy cesspools are within a few feet of wells supplying potable water. Mr. Eager truly says that "such a state of things is disastrous in the extreme, and must sooner or later lead to grave mischief." It appears that this matter has before now been brought under the notice of the Guildford Rural Sanitary Authority. A serious responsibility rests upon them if they do not take steps at once to remedy the evils pointed out. The district is naturally a very healthy one, and it would be most culpable if, through want of ordinary sanitary supervision on the part of the authority, its reputation for salubrity, already jeopardised, should be lost.

THE difficulty of making provision for the reception of non-pauper cases of small-pox during an epidemic of the disease has been solved in the parish of St. George-in-the-East in a manner which will probably be imitated elsewhere. At the request of the sanitary authority, the guardians have granted the use of the casual wards of the workhouse for such purpose, together with the bedsteads, bedding, and other furniture now in the rooms, stipulating, however, that the vestry shall provide the necessary staff of medical and other attendants, also food and all necessaries, and that no liability whatever is to fall on the guardians in respect of these arrangements. The casual poor will in the meantime be accommodated in the neighbouring Whitechapel Union.

THE Howard Association believe that the Prisons Bill, which will shortly come before Parliament, is susceptible of much improvement, especially of simplification. The following provisions are urged by the Association as being desirable:—The abolition of many small and unnecessary gaols; the repeal of the undue restrictions on varied and profitable prison labour imposed by the Prison Act of 1865; the removal of the charges for prison expenses from the local to the imperial funds, but without the collateral appointment of a central board to supersede in any way the visiting justices; and, lastly, a liberal provision for the officers of prisons which may be discontinued.

IT would appear from a letter in *The Times* by Dr. Acland that the National Hospital for Incurables, Cowley St. John, near Oxford, is sorely in want of funds. We some time back perused a prospectus of the institution, and were led to express a hope that the ecclesiastical element might not be brought into undue prominence in a building destined for the treatment of disease, and that no attempt would be made to combine a convent with a hospital. The "Lady Superior" has supplemented Dr. Acland's letter with some information regarding the position of the institution, which is intended to meet the wants of persons considerably above the class of paupers. It deserves support, and we trust Dr. Acland's appeal will not have been made in vain.

THE *Glasgow Herald* announces that Dr. Henry Muirhead, of Bushyhill, Cambusland, has generously offered to the University of Glasgow the sum of £2100 as an endowment of a Demonstratorship of Physiology in connexion with the chair of Institutes of Medicine. The object of the endowment is the promotion of medical science by the training of young men to become teachers and investigators of physiology, a training best obtained by actual work in the laboratory, and by practical experience in the art of teaching. It is to be hoped that the munificent example set by Dr. Muirhead will be followed by further endowments in other departments of science pursued at the Glasgow University.

LAST week Mr. T. Pridgin Teale delivered a lecture before the members of the Leeds Philosophical and Literary Society, on the subject of "Dangers to Health in our own Houses." The various means by which air and water become contaminated were fully described by the lecturer, and a good deal of useful practical information conveyed, which might well be published for the education of householders generally. In the discussion which ensued, the President of the Society, Dr. Clifford Allbutt, Dr. Eddison, and others, took part, a desire being evinced that the lecture should be delivered to an audience composed of working men; and Mr. Teale expressed himself willing to comply with this wish.

ANOTHER melancholy case of death from the omission of a precaution the necessity of which we have often pointed out has occurred at Pendleton. A man ill with rheumatic fever had had prescribed for him by his physician a lotion and some medicine, which were contained in similar bottles. The patient's wife, in the dark, with the intention of giving her husband a dose of medicine, took up the wrong bottle, and administered a dose of the lotion instead, from the effects of which the patient died. This accident could hardly have happened had the lotion bottle been fluted or shaped differently from that containing the medicine.

THE officers of the Coldstream Guards have caused a handsome window to be placed in Holy Trinity Church, Windsor, to the memory of the late Lieut.-Col. Tower, Surgeon-Major Wyatt, C.B., and the Hon. A. Charteris. There are many members of the profession in the metropolis who will be gratified by this tribute to the worth of the late Mr. Wyatt.

THE Local Government Board has advised the St. Pancras Guardians to purchase twenty acres of land and erect another workhouse to accommodate a thousand inmates. The proposal appears to be distasteful to the majority of the guardians, and an exciting contest between the central authority and the parish may be anticipated.

THE SMALL-POX EPIDEMIC.

THE small-pox epidemic, although still mainly confined to Liverpool, Manchester and Salford, and London, clings with great tenacity to these three centres of infection. During the fourth week of January 113 deaths from small-pox were registered in twenty of the largest English towns, having an estimated population of rather more than seven millions of persons; in the three preceding weeks of the year the numbers returned in these towns were 146, 128, and 113, respectively. The 113 in the most recent week included 86 in London, 19 in Liverpool, 6 in Salford, 2 in Manchester (exclusive of three fatal municipal cases in the Monsall Hospital situated outside the city), and not one in any of the sixteen other towns. The numbers in Liverpool, and in Manchester and Salford, showed a slight decline from those returned in the previous week, whereas the fatal cases in London were somewhat more numerous.

The deaths from small-pox within registration London, which had been 116, 100, and 79 in the first three weeks of the year, rose again to 86 in the week ending January 27th; 38 were certified as unvaccinated, 22 as vaccinated, and in the remaining 26 fatal cases the medical certificates did not furnish any information as to vaccination. With reference to the proportions of unvaccinated and vaccinated among the certified cases, the Registrar-General remarks in his last Weekly Return:—"In order fully to appreciate the remarkable tendency of small-pox to single out the unvaccinated for its victims, it should be remembered that the vaccinated in the present population of London are probably nine times as numerous as the unvaccinated." The 86 deaths from small-pox included 36 in the Metropolitan Asylums Hospitals at Homerton, Stockwell, and Hampstead, two in the Highgate Small-pox Hospital, and four in other public institutions, the remaining 44, or 51 per cent. of the total cases, occurred in private dwellings. After distributing the hospital cases the Registrar-General reports that 9 of the deceased small-pox patients had resided in Lambeth (including 3 at Lower Norwood), 6 in St. George's, Southwark, 6 in Battersea, 5 in Hackney, 5 in Newington, and 5 in Poplar. Eight belonged to the West, 17 to the North, 4 to the Central, 20 to the East, and 27 to the South groups of registration districts. The fatal cases showed a decline in East London, whereas they were more numerous in the West, Central, and South districts.

During the four weeks of January the annual rate of mortality from small-pox per 10,000 persons living, was equal to 3 in the Central, 8 in the West, 13 in the North, 18 in the South, and 19 in the East Districts. Small-pox has, therefore, recently been more fatal in the East districts than in any other part of London, and during the four weeks ending 27th ult. no less than 40 of the 96 fatal cases occurring among the residents of this part of London were registered in the Metropolitan Asylum Hospitals at Hampstead, Stockwell, or Homerton. The inhabitants of East London evidently see no objection to sending their own small-pox patients to other parts of London where hospitals already exist, but seriously object to bear their own part of the burden, even in face of the fact that they, through their own neglect of vaccination and of revaccination, are contributing proportionally the largest number of sufferers from the disease in the metropolis.

It appears worthy of the attention of those who, at such a time as the present, see fit to agitate against compulsory vaccination, and do not scruple even to assert in hand-bills distributed among the poor and ignorant that small-pox is caused by vaccination, that of the 86 deaths from small-pox during the fourth week of January in London, 30 were of children under five years of age, including 21 certified as unvaccinated; in the other nine cases no information as to vaccination was given in the medical certificates. Thus, disregarding the nine "not stated" cases, 21 deaths from small-pox occurred among the small number of unvaccinated children, and not one among the larger number vaccinated. Will anti-vaccinationists assert that this apparent singling out of the unvaccinated children by small-pox is mere chance? They will probably prefer to assert that the 21

medical practitioners falsely certified that these children had not been vaccinated! To this kind of assertion there can be no rejoinder at once effective and polite. Especial reference is made in the last weekly returns to the case of a boot-maker in the Holloway-road, Islington, who lost two unvaccinated children from small-pox on 24th and 26th January, aged respectively seven months and four years.

In the outer-ring of suburban districts round London, 11 deaths from small-pox were registered in the week ending 27th ult., against 11 and 10 in the two preceding weeks; they included 6 in the district of West Ham, 2 in Croydon, and 1 each in Mitcham, Sunbury, and Edmonton. Most of these cases were of adults vaccinated in infancy, but not revaccinated; two, however, in the Croydon workhouse were unvaccinated cases, although one, a child aged three years, was vaccinated a week before the eruption appeared, and therefore after it had caught the disease. In Walthamstow an unvaccinated postman, aged 31 years, is said to have fallen a victim to small-pox.

LIVERPOOL MEDICAL INSTITUTION.

AT a special meeting of the members of the Liverpool Medical Institution, held on Friday, the 26th ultimo, to consider the present method of electing the honorary medical officers to the Liverpool charities, Dr. Turnbull, the President, in the chair, the following resolutions were passed:—

Proposed by Dr. Waters, seconded by Mr. Bickerstoth: "That, in the opinion of this meeting, the election of the honorary medical officers of the great medical charities by so limited a body as a committee of management is open to grave objection and liable to abuse, and that it is calculated materially to affect the interests of these charities."

Proposed by Dr. Cameron, seconded by Mr. Shadford Walker:—"This meeting, having heard that it will be proposed at the annual meeting of the Royal Infirmary to alter the laws of the institution so as to place the election of the honorary medical officers in the hands of the Committee, would earnestly impress on the trustees the desirability of not making the proposed change."

Proposed by Dr. Vose, seconded by Dr. Carter:—"That copies of the foregoing resolutions be sent to the President and Chairman of the Committee of the Royal Infirmary to the Liverpool daily papers, and to the medical journals."

THE CHILDREN'S HOSPITAL, PENDLEBURY.

To the Editor of THE LANCET.

SIR,—To those who are unacquainted with the constitution of the governing body of the Children's Hospital, and of the paramount and, indeed, autocratic influence of Dr. Borchardt upon the Board, Mr. Agnew's letter is calculated to convey a most erroneous impression, for it implies that the Board acted on their own knowledge; whereas, as he himself acknowledged to me, the action was entirely based on certain statements made by Dr. Borchardt at the meeting in question, where all the members present but himself, about six in number, as I am informed, *were laymen* with whom I rarely or never came in contact. On these statements action was at once taken, and no inquiry made into their truth. Thus the act was virtually at the dictum of one man. It will readily be seen to what abuse of power such a state of things is sure to lead, and how easy it becomes to gratify private feeling on altogether assumed grounds. The assistant-physician to the hospital, who is debarred from sitting on the Board himself, and who knows nothing of what goes on there, is thus placed entirely at the mercy of one man.

My authority for stating that a distinct charge of the most serious nature, and which, if true, would have involved the grossest cruelty on my part, was made against me by Dr. Borchardt, was none other than the vice-chairman of the Board of Governors. This charge, which, as I have already said, was entirely false, was of a kind best calculated to affect a lay mind, and on that of the vice-chairman it had evidently made a deep impression. He gave me to understand that it was on this charge that the action of the Board was based, and on my stating that I should apply for an investigation, he acknowledged that I had a perfect right to ask and to expect one.

Knowing that any more specific charge must break down under investigation, it is an easy matter for Dr. Borchardt to prefer one of a vague and general nature, such as insufficient experience, which, as the Board allows him to constitute himself the sole judge in the matter, he of course knows that it is difficult for me to meet. I can, however, point to the fact that the state of the wards whilst under my care, as shown by statistics, will compare most favourably with that of any previous year. And even if I did not know that Dr. Borchardt has had no adequate opportunity of forming a judgment in the matter, for our wards were quite distinct, I could still, in the knowledge that I have always hitherto gained the entire appreciation of those with whom I have worked, of men of high rank in the profession, afford to disregard his opinion.

I am, Sir, yours obediently,

Eccles, Jan. 30th, 1877. CHAS. A. RAYNE, M.B. Lond.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentleman was admitted a Member of the College on Jan. 25th:—

Crocker, Henry Radcliffe, M.D. Lond., University College Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on the 25th and 26th ult:—

Arnott, Sandford, St. Vincent's, West Indies.
Biale, John S., Phillimore-place.
Blamey, James, L.S.A., Penryn, Cornwall.
Brown, John A., Peckham.
Bunny, Joseph B., Newbury.
Byam, Samuel H., L.R.C.P. Lond., Exmouth.
De Caux, Frederick, L.S.A., Norwich.
Dening, Edwin, Taunton.
Freer, Edward L., Birmingham.
Groves, Henry E., Regent's-park-road.
Haines, William John, Hendon.
Henderson, George C., Jamaica.
Hunt, George A., Rocester.
Jeans, Francis A., Pinner.
Kempe, Arthur W., Brent.
Lake, William W., L.S.A., Ilford.
Langton, Herbert, Brighton.
Lees, Clement, Birmingham.
Liddell, Henry J. S., Ivy Bridge.
Lloyd, David, L.S.A., Newcastle Emlyn.
Maclean, Fitzroy B., Kew.
Marsh, William G. H. B., Bristol.
Morris, Clarke K., Spalding.
Perry, Charles E., Henley-on-Thames.
Roberts, Henry W., L.S.A., South-square.
Robertson, George S., L.S.A., Dover-street.
Ross, John H., Bloomsbury-square.
Semple, Edward, Totnes.
Smith, William Henry, L.S.A., Sibsey.
Solomons, Philip F., Ceylon.
Steedman, Percy A., Cape of Good Hope.
Toll, John T., L.R.C.P. Edin., Port Adelaide.
Turner, Alfred M., L.S.A., Gloucester.
Walker, Basil W., Great Yarmouth.
Watson, Charles J., Norwich.
Weichman, Walter H. L., L.S.A., Falmouth-road.

Of the 127 candidates examined during last week, 74 passed to the satisfaction of the Court of Examiners and obtained their diplomas; 19 passed in Surgery, and when qualified in Medicine will be admitted Members; the remaining 34, having failed, were referred for six months' further professional study.

[In the list of candidates who passed the Primary Examination on Jan. 18th., published in our last week's issue, for "A. C. B. Crosby," read "Arthur Crosby Brett Jones."]

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Jan. 25th:—

Bailey, William Edward, Stockport.
Poynder, John Leopold, Southsea.
Pritchard, Ernest James, Shilton, near Coventry.
Smith, Ernest Sutton, Stanhope-street.

The following gentlemen also passed the Primary Professional Examination:—

Henry Ridley Dale and Tom Sayer, University College; Herbert Warnefore Thomson, Charing-cross Hospital.

MR. L. W. SPENCER, M.R.C.S., L.R.C.P., L.M., has been elected a Town Councillor for Fishwick Ward, Preston.

THE will of Dr. Henry Clark Barlow, of Churchyard-row, Newington Butts, has been proved under £8000.

WE understand that in the course of a few days, last month, six rabid dogs were destroyed in Cardiff, and that one is supposed to be still at large. Stringent police regulations have been issued on the subject.

AT an influential meeting at the County Hall, Carlisle, Mr. Robert Ferguson, M.P., in the chair, it was decided to erect a Home for Incurables for the Border counties. Donations have been received amounting to nearly £600, and a considerable amount has been promised in annual subscriptions. A committee was appointed to raise funds and take the necessary steps for erecting the building.

BRITISH MEDICAL BENEVOLENT FUND.—The annual general meeting was held on 10th January; Sir George Burrows, Bart., president, in the chair. The report having been read, was approved and adopted. The amounts received as donations were less by nearly one-half than in 1875, the sum being £473. The subscriptions have, however, reached £955. A legacy of £500 from the late Sir James Bardsley has also been received, and invested for the Annuity Department. The amount voted to cases of distress from the Immediate Relief Department was £1379, in 130 grants, benefiting over 330 persons. A further sum of £689 has been distributed amongst thirty-six annuitants, the total number assisted during the year being upwards of 380 individuals, at a cost of £2068.

ENTERTAINMENT AT CLAPTON ASYLUM.—The annual new year's entertainment for the imbecile children at the Metropolitan District Asylum, Lower Clapton, took place on Thursday, the 25th of January. It commenced with a concert performed entirely by imbecile children, a novel proceeding, but a successful one. The fairy burlesque of Red Riding Hood followed, the characters being taken by the staff and inmates, under the direction of Dr. Fletcher Beach, the medical superintendent. A short performance of the "Anvil Chorus" with dumbell accompaniment by some of the patients, concluded a very enjoyable evening. Dr. Brewer, Chairman of the Metropolitan Asylums Board, Sir Edmond Currie, Chairman of the Committee of Clapton Asylum, and nearly two hundred visitors were present.

Medical Appointments.

BRACKENRIDGE, D. J., M.D., F.R.C.P.Ed., has been promoted to Senior Assistant-Physician to the Royal Infirmary, Edinburgh, vice Muirhead.

BURKE, W. M., F.K.Q.C.P.I., has been appointed an Inspector under the Cruelty to Animals Act, 39 & 40 Vict., cap. 77.

BURROUGHS, W. H., L.R.C.S.I., has been appointed Medical Officer *pro tem.* to the Sheffield Provident Dispensary, vice Taylor, invalided.

COATES, F. W., M.D., M.R.C.S.E., L.S.A.L., has been appointed Visiting Surgeon to the Wilts and Dorset Penitentiary, Salisbury, vice Winzar, deceased.

COULDREY, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Scunthorpe District of the Glanford Brigg Union, vice Paterson, resigned.

EVANS, D. T., M.R.C.S.E., L.S.A.L., has been appointed Resident District Surgeon to the Pendleton Branch of the Salford and Pendleton Royal Hospital and Dispensary.

FITZHENRY, G., M.R.C.S.E., L.S.A.L., has been appointed Inspector of Army Recruits for the District of Brynmawr.

FOWLER, Mr. J. K., has been appointed House Physician to Addenbrooke's Hospital, Cambridge, vice Ewart, resigned.

FRASER, A. D., M.B., C.M., has been appointed Medical Officer to the Gesto Hospital, Edinbain, Isle of Skye.

GIFFARD, D. W., M.R.C.S.E., L.S.A.L., has been appointed a Surgeon to the Brighton and Hove Lying-in Hospital and Dispensary for Diseases of Women and Children, vice Tuke, resigned.

GRANT, J., L.R.C.P.E., L.R.C.S.E., has been appointed Medical Officer for Hoy High and Hoy Low Lighthouses, Graemsay, vice Garson, resigned.

HALLAM, A., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Girls' Charity School, Sheffield, vice Parker, deceased.

HOLLINGSWORTH, J. McKee, F.R.C.S.I., L.K.Q.C.P.I., has been appointed Police Surgeon and Medical Officer to the A and D Divisions of the Leeds Police Force.

JONES, H. T., L.K.Q.C.P.I. & L.M., M.R.C.S.E., has been appointed Medical Officer of Health for the Hucknall-Torkard Urban Sanitary District, vice McDermott, whose appointment has expired.

MACDONNELL, H. H., M.B., C.M., has been appointed Surgeon to the Louth County Infirmary and to the County of Louth Gaol, Dundalk, vice Brunker, resigned.

MUIRHEAD, C., M.D., F.R.C.P.Ed., has been promoted to third Ordinary Physician to the Royal Infirmary, Edinburgh.

MURRAY, Dr., has been appointed Surgical Registrar to St. Thomas's Hospital Medical and Surgical College, vice Newbury.

MURRAY, Mr. J., has been elected Honorary Consulting Surgeon to the Brighton and Sussex Eye Infirmary, on resigning the appointment of Acting Honorary Surgeon to the Institution, an office which he had held for fifteen years.

NANKIVELL, C. A., M.B., has been appointed Honorary Physician to the Torbay Infirmary, Torquay, vice Lombe, resigned.

PRICE, H. E., B.Sc., M.R.C.S.E., has been appointed House Surgeon to the London Hospital.

STEPHENS, T. P., L.R.C.P.Ed. & L.M., L.F.P.S.G., has been appointed Medical Officer for No. 3 District of the Havant Union, vice Bulk, resigned.

STEWART, W. R. H., M.R.C.S., L.S.A., has been appointed Emergency Surgeon to the Hospital for Diseases of the Throat, Golden-square.

TATTERSALL, W. J., L.R.C.P.I., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Little Woolton Urban Sanitary District for three years.

TUKE, J. K., M.R.C.S.E., L.S.A.L., has been appointed a Consulting Surgeon to the Brighton and Hove Lying-in Hospital and Dispensary for Diseases of Women and Children, on resigning as Surgeon.

WALTER, W., B.A., M.B., has been appointed House Surgeon to the Salford and Pendleton Royal Hospital, Manchester, vice Morris, resigned.

WELSH, W. K. B., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Southsea District of the Portsea Island Union, vice Pike, resigned.

WYLLIE, J., M.D., F.R.C.P.Ed., has been appointed Junior Assistant-Physician to the Royal Infirmary, Edinburgh, vice Brackenridge.

Births, Marriages, and Deaths.

BIRTHS.

ADAMS.—On the 25th ult., at Barnes, Surrey, the wife of James Adams, M.D., of a son.

BIGGER.—On the 22nd ult., at Portadown, co. Armagh, the wife of David Bigger, M.D., of a son.

CHURCHILL.—On the 26th ult., at Sumner-place, South Kensington, the wife of Frederick Churchill, M.D., of a daughter.

FOX.—On the 30th ult., at The Grove, Great Baddow, Essex, the wife of Dr. Cornelius Fox, Health Officer for East, Central, and South Essex, of a daughter.

MARSH.—On the 31st ult., at Dante-road, Newington-butts, the wife of Walter A. Marsh, M.R.C.S.E., of a son.

MILLER.—On the 24th ult., at Brafield, Upper Norwood, the wife of R. M. Miller, M.D., of a son.

PITTOCK.—On the 23rd ult., at Cecil-square, Margate, the wife of G. M. Pittock, M.D., of a daughter.

SMITH.—On the 29th ult., at Queen-square, Glasgow, the wife of George Smith, M.D., of a son.

WRIGHT.—On the 23rd ult., at Spring Mount, Northwich, the wife of Strethill H. Wright, M.D., of a daughter.

MARRIAGES.

FISHER—MILES.—On the 27th ult., at Leicester, William Paine Fisher, M.R.C.S.E., to Elizabeth Miles, niece of the late William Miles, Esq.

HAYMAN—FORD.—On the 25th ult., at St. James's, Paddington, Charles Norton Hayman, M.B., to Flora Elizabeth Justice, daughter of the late William Augustus Ford, Esq.

DEATHS.

CAREY.—On the 23rd ult., at Weston-super-Mare, Samuel Orby Carey, L.R.C.S.I., aged 36.

CHRISTMAS.—On the 28th ult., at the Grove, Hammersmith, Robert Dunn Christmas, Surgeon, in his 47th year, deeply lamented.

GRAHAM.—On the 21st ult., at Dumbarton, William Graham, L.F.P.S.G., aged 43.

LANDOR.—On the 6th ult., Henry Landor, M.D., of London, Canada.

POWER.—On the 25th ult., at Mannheim, Baden, John Livingstone Power, L.R.C.P.Ed., Surgeon-Major 4th Regiment.

SMITH.—On the 24th ult., at Winchcomb, Gloucestershire, Samuel Smith, M.R.C.S.E., aged 68.

SPONG.—On the 31st ult., at his residence, Albion-terrace, Faversham, Kent, William Nash Spong, F.R.C.S., aged 56, deeply lamented.

STACE.—On the 23rd ult., at Southampton, Joseph Stace, M.R.C.S.E., formerly Surgeon Hon. East India Co.'s Service, aged 92.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

G. Fleming's Text-book of Veterinary Obstetrics.
The Veterinary Journal.
The British Journal of Dental Science.
The Monthly Microscopical Journal.
Hardwicke's Science Gossip.
Vasey on Individual Liberty.
Classified Directory to the Metropolitan Charities.
Sunday at Home. February.
Leisure Hour. February.
Good Words. February.
Sunday Magazine.
W. Crookes: Auerbach on Anthracen.
The Slade Case: its Facts and its Lessons.
Cassell's History of India. Part 14.
Mansell's Almanac of Planetary Meteorology.
The Popular Science Monthly.
Duhring's Diseases of the Skin.

Notes, Short Comments, and Answers to Correspondents.

THE MADNESS OF TASSO.

THE mental malady of the author of the "Gerusalemme Liberata" has been analysed by many psychologists, but by none so effectively as by Dr. Verga, the celebrated Italian physician, who has recently been promoted, like so many of his professional brethren, to a seat in the Senate. Dr. Verga's analysis was read as a paper before the Lombard Institute of Science and Literature on the 3rd of April, 1845; and though it was too subtle to be widely popular, still it numbered many admirers at the time, among them being the illustrious Alessandro Manzoni, the author of the "Promessi Sposi." It was entitled "Sulla Lipemania del Tasso" (On the Lipemania of Tasso), and forms a fragment of the author's then projected work on Hallucinations. After a careful induction of all the indications of Tasso's mental mood to be gathered from his poems and from contemporary notices, Dr. Verga characterises it as one of the most striking examples of that form of madness known to the ancient writers as "melancholia vera," and to the moderns, after Esquirol, as "lipemania." He follows the poet from his cradle to his coffin, depicts his father as subject to melancholic attacks, and his mother as having died young under violent delirium. Tasso as a boy was never seen to smile; seldom to weep; shrunk from the society of his school-fellows; and finally grew up tall and slender, supple, yet muscular and vigorous, with a bushy beard, with a fresh carnation complexion, profoundly haughty in character, and markedly free, imaginative, and acute in genius; "in one word," says Dr. Verga, "of the neuro-bilious temperament." Family cares, the laceration of the dearest affections, supervening on personal annoyance and suffering, made havoc of his intellect, while he became prematurely bald, and subject to febrile attacks. Dr. Verga then, with great skill, illustrates these effects on Tasso's mind through his poems, and portrays him in society as ill at ease, suspicious of everything and everybody—that pathognomonic sign of lipemaniacs even in the seclusion of the asylum, where they ascribe their confinement to every cause but the true one. With almost harrowing fidelity Dr. Verga describes the poet's hallucinations, as when he convinced himself that an evil spirit had robbed him of his money, turned his books continually topsy-turvy, opened his chest, and abstracted his keys. From seeing a youth of angelic beauty, Tasso came to behold with equal vividness the Madonna herself. "Melancholia vulgaris," or common melancholy, in which a vague terror mingles with the depression, was succeeded in Tasso by "melancholia errabunda," and finally by "melancholia attonita," which induces a kind of stupor, and deprives the patient of will and motive, corresponding to the "ecstasis" of the text-books. He died at the age of fifty-one. "If," says Dr. Verga, "he was a prodigy, an extraordinary outcome of nature, his life was at once opposed to the custom of mankind, and to its common expectation." Incidentally, Dr. Verga gives an admirable account of "reasoning madness"; indeed the whole paper deserves to be better known, although we suspect it has often been had recourse to by essayists, who have forgot to make the due acknowledgments to its author.

Mr. H. de Styrap.—We are unable to give the names of any such gentlemen.

ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—Mr. Hardy's short-service scheme for recruiting the Army Medical Department appears to have proved a failure, judging from the last examination, and which was anticipated by the profession generally. It was quite apparent the Warrant would not succeed; for no sane man of ordinary ability or enterprise, having procured a profession at no inconsiderable expense and four or five years' hard study, would throw away the best ten years of his life, to be spent principally in unhealthy climates, for the trifling remuneration offered by the Government—viz., £250 a year, and a bonus of £1000 on completing ten years' good service, half-pay from sickness or other causes not to count. The pay, a little over 13*s.* 6*d.* a day, is only about sufficient to meet daily requirements; and considering the various incidental expenses arising from the erratic life of an army surgeon, and the society he is unavoidably thrown into, he is indeed a lucky and thrifty man if much of the £1000 finds its way into his pocket on completing his term of service. Formerly men were induced to enter the medical service not so much by the pay as the peculiar attraction of the life—viz., love of adventure, pleasant companionship, easy gentlemanly life, and a comfortable home with a regiment; but now this is all changed, the authorities deeming it expedient to alter the system, whether for the good or bad of the army it is needless to comment on, it now being an accomplished fact. But the medical officer finds his position very different from former days. He now has no certainty, no home, is nobody's child, feels himself a time-server, and pines for the day he can shake off his temporary shackles, make a home, and start in his profession fairly. Formerly too many adopted the profession solely with a view of entering the army and making it their home; but now the combatant branches offer much greater attractions, and, if the recommendations of the Army Promotion Commission are carried out, a subaltern will fare infinitely better than a surgeon of equal standing. The former, joining the army at the age of eighteen, can retire after ten years' service, with a bonus of £905—*mark*, only £5 less than the surgeon, who brought an expensive profession with him, and who generally is six years the subaltern's senior, which six years have been spent in getting a profession at his own expense, whilst the subaltern has been receiving Government pay; the surgeon's retirement being, too, almost compulsory. Even if the inducements to short-service men were greater, it is not at all probable many would venture into the service so long as the men already in the service make it their business to warn their brothers, relations, and friends to avoid the army. And yet a few changes would make the department happy, contented, and as much sought after as in days of old. Cancel the late Warrant, at least the short-service portion; for even if the system succeeds in inducing enough of candidates to enter, the majority will be of a class neither a credit to the profession nor to the department, men who have failed in life from one cause or another. Let promotion be, as heretofore, by seniority after a test examination as to fitness. Rectify the leave and exchange question. Give a fair pension after twenty years' service, which would keep up quick promotion, now that the great glut is removed. Give the department a more pleasing title, say "Corps of Royal Surgeons." Define officers' rank better, by styling them lieutenant-surgeons, surgeons, surgeon-majors, &c. &c. Give medical officers their proper position in the Army List as becometh a scientific body, and not tacked on, as at present, to the tail-end of everything and everyone. Let surgeons be masters of their own hospitals and of their own orderlies. Abolish officers of orderlies, except an adjutant and a quartermaster at the depôt, replacing them by warrant officers, one to be attached to each station hospital, to be the senior medical officer's right-hand man, and in charge of the hospital, commissariat, &c. Hand over the army hospital corps altogether to the medical department, to be officered by them; for surely the surgeon is more fit for the position than officers raised from their own ranks; or does the surgeon's profession unfit his intellect for everything save the healing art? The army hospital corps is a non-fighting corps of orderlies, made up of drilled soldiers, volunteers from various regiments, and can only be instructed by medical officers; consequently should be under them completely, without any intervention. Limit the surgeon's age up to twenty-five for admission into the army, and, after going through the Netley course, let them all be sent to the depôt of the army hospital corps for three or four months for special instruction, to learn the rudiments of drill, and a knowledge of the necessary documents to be kept; also to go through a course of equitation. Then, and not till then, will the department become popular, an *esprit de corps* generated, and men be proud of their profession and department.

I remain, Sir, yours truly,

January, 1877. REFORM.

To the Editor of THE LANCET.

SIR,—The Army Medical Department are indebted to you for once again discussing matters pertaining to them. You very properly say, "Let the unification system have a fair trial." You have a leaning thereto, and I think have shown good reasons for your advocacy. If an impartial observer carefully considers its merits and demerits, he cannot but acknowledge the benefits to the Department which this system confers, among the chief of which are equalisation of foreign service, permanence of home and other appointments, early and certain promotion, and retirement of senior administrative officers at sixty years of age. The regimental system should be looked upon as utterly gone, as the purchase system is to the combatant officer, and our efforts should be to have a united body of medical officers or corps—Royal Corps of Surgeons—such as the Royal Engineers. One cannot but see that a few changes for the better might be introduced:—Rules of sick leave altered; greater freedom of exchange; strict adherence to the Warrant, and no curtailing of its terms; rank to have its equivalent professional title—i.e., senior surgeon-major after twenty years' service.

I am, Sir, yours &c.,

Jan. 24th, 1877. FAIR PLAY.

To the Editor of THE LANCET.

SIR,—Clause 2, Army Circular, 1877, says: "Medical officers will in future be entitled to staff allowances; but, when quartered in barracks, will be entitled only to regimental quarters." I cannot tell how your correspondent, "Ex-Linesman," can make "will be entitled only to regimental quarters" refer to anything else but "regimental quarters," in contra-distinction to staff and departmental quarters, to which medical officers are entitled under a former circular, and the word "but" is used to draw the distinction. The word "barracks," in War Office parlance, means camps like Aldershot as well as barracks proper; and by this clause No. 2, January, 1877, medical officers, who by the former circular were entitled to five rooms and a kitchen, will now have to content themselves with two rooms and a kitchen, and this further implies a reduction in the allowance of coals, candles, and barrack furniture. No officer can get quarters and draw lodging-money besides, and therefore the clause which says that medical officers "will be entitled only to regimental quarters" deprives them of staff and departmental quarters when they are quartered in barracks or camps, and where else they are likely to be quartered I really cannot tell. If the interpretation I have put upon this clause be not correct, I should be glad to learn it; but in this case the War Office officials who print circulars ought to learn the English language. It is not politic, to say the least, at a time of such universal discontent, to clip down the substantial allowances of the medical department, and of it alone. Your obedient servant,

January, 1877. NEW YEAR.

SMALL-POX AMONGST GOATS.

SMALL-POX has appeared in an epizootic form among the flocks of goats near Los Barrios, Gibraltar, and orders have been issued to prevent the entrance of goat milk or flesh from the infected districts into the garrison. Meantime the outbreak is the subject of a special inquiry.

Veritas (Glasgow) has omitted to authenticate his letter with his name.

TRAINED NURSES.

To the Editor of THE LANCET.

SIR,—In your issue of Saturday last, in a letter on the subject of cases of accidental poisoning in hospitals, signed "A Trained Hospital Nurse," the following sentence occurs:—"In the case which occurred recently at the Children's Hospital at Liverpool, the poison was administered by an untrained nurse, aged seventeen, who could neither read nor write." Your correspondent has evidently made some mistake, as no case of accidental poisoning has ever happened here; and, moreover, the nurses in charge of the wards are skilled, trained, and *accurate*.—Yours &c.,

W. T. HAYWARD,
House-Surgeon to the Liverpool Infirmary for Children.

Jan. 29th, 1877.

INSECTIVOROUS PLANTS IN TASMANIA.

MR. DARWIN, we have no doubt, will be interested to learn that there are in Tasmania plants that capture, kill, and digest insects. Dr. Crowther, of Campbell Town, in a letter to the colonial paper, describes the insectivora. The plant grows on rocky ground, whose crevices contain rich organic soil, "different from the peaty soil Darwin's grew in." It is about six inches in height, and from its single vertical stem project from one to two dozen small footstalks, at irregular and variable distances. On the summit of each footstalk is a rounded disc, placed horizontally about half an inch in circumference, fringed with tentacles of different sizes. In the centre is a hollow, with small firm filaments projecting vertically; on the ends of both filaments and also tentacles are little reddish glands, which secrete "a sticky material." The fly rests on the outer zone, is conveyed by the sticky tentacles to the centre, which at once closes upon the victim so tight that a bulging may be seen corresponding to the fly inside. After a while the trap again opens, showing the débris of the fly, and all is ready for the reception of another victim.

Mr. J. C. Leach.—We have not yet recorded the elections named.

ON LYING-IN HOSPITALS.

To the Editor of THE LANCET.

SIR,—The interesting question of the mortality in lying-in hospitals having been brought forward, it has occurred to me that some important light might be thrown upon the subject by the experience gleaned from the lying-in wards of the workhouses and parish infirmaries whose deliveries exceed 100 a year. Now, these lying-in wards are veritable lying-in hospitals (in Liverpool Workhouse the deliveries are 600 a year); and although they are subject to all the causes of puerperal mortality, yet from some reason or other the deaths are comparatively few.

The highly instructive letter of Mr. Lee in your impression of last week contains some important suggestions as to digital examination &c., with valuable hints as to interfering with the natural process of labour as little as possible.

I might be permitted, as the resident medical officer of a parish infirmary for some years, to make a small contribution towards the subject by showing the regulations and means we have adopted, by rigidly carrying out which our mortality from puerperal fever has been almost *nil*; and many other workhouses, I believe, could tell the same story:—

1. On leaving the labour bed, every woman shall be placed in a bed, of which the bed-tick, sheets, blankets, and counterpanes are all fresh and clean, and she shall retain the same bed while she is in the ward. 2. All the beds and bedclothes shall be disinfected with turpentine every day. 3. Every woman shall have a clean towel for her separate use, and every infant a separate clean soft towel kept for it. 4. Every infant shall have a separate small piece of flannel kept for it for washing purposes; this piece of flannel will be supplied from the surgery, and is to be returned there when the child leaves the ward. 5. Clean fresh water to be used for washing each infant. 6. Clean linen and sheets and napkins to be changed as often as necessary, to keep the patient clean and free from smell. 7. The lavatories and closets are to be kept scrupulously clean, and free from dirty clothing, and from rubbish of all kinds. 8. In case of sore eyes, a piece of soft rag is to be used for washing, and burnt immediately afterwards. 9. Every woman shall remain in the ward three weeks before discharge, and any complaint at time of discharge, or before, as to diet or illness, to be reported at once to the medical officer. 10. On each woman leaving the ward, all the blankets, sheets, counterpanes, linen, flannels, &c., used by her, to be cleared out of the ward and washed, the bed-tick opened, the flocks examined, any soiled flocks burned, and the flocks put into a clean tick. 11. No patient is to be set to scrub the floors. 12. Every patient shall have a separate chamber vessel, which shall be kept for her exclusively.

The beds of a lying-in hospital have much to answer for as regards the mortality, as they become tainted by infected air or soakage. If they were made of straw, and burnt after each case, all danger from this source would be avoided. The soiled linen should be cleared out of the ward at once, and be speedily washed. No sponges should be used; tow or rag should be used for washing, and burnt immediately. Basons, washed with boiling water, disinfected with Condy's fluid; each woman ought to have a washing bason to herself. Wards should be limewashed twice or more a year; floors kept well scrubbed, but not damp; drains disinfected by carbolic acid. Fire to be always lighted. The hands of doctor or nurse, instruments, catheters, &c., should be rubbed over with turpentine, and wiped before being oiled and introduced. The labour bed should be, if soiled, burnt. Leave cases alone as much as possible, unless aid be necessary. Do not hurry the placenta. Isolate in a room right away any suspicious case, and syringe out the vagina with warm Condy's fluid and water.

Such are the rules I have made for my own and the nurses' guidance, and in that spirit I merely copy them here.

Your obedient servant,

St. Mary's (Islington) Infirmary, Jan. 1877. PHILIP COWEN.

Chemicus, (Belper.)—We believe the statue of Faraday, which was far advanced in the hands of the artist Foley at the time of his death, has since been completed by one of his pupils, and is now awaiting arrangements for its erection.

Mr. Butler's communication shall be noticed next week.

SANITARY INSTITUTE OF GREAT BRITAIN.

To the Editor of THE LANCET.

SIR,—Will you kindly permit me to inform your readers that the Sanitary Institute propose to hold a public meeting early in March next, at the Society of Arts, to consider the report recently issued by the committee appointed by the President of the Local Government Board, upon the modes of treating town sewage? His Grace the Duke of Northumberland will preside at the meeting, and the discussion will be opened by Sir Joseph William Bazalgette, C.B. Gentlemen desirous of taking part in the discussion will greatly oblige by forwarding to me their names and the heads of the subjects on which they desire to speak. Your obedient servant,

Jan. 31st, 1877. LOBY MARSH, Secretary.

UNIFORMITY OF METEOROLOGICAL OBSERVATIONS THROUGHOUT THE WORLD.

THE Secretary of the American Navy lately issued an order, directing that in future an observation shall be recorded daily on every naval vessel, wherever she may be, at 7.35 A.M., Washington mean time. These observations will embrace, when practicable, atmospheric pressure, temperature, wind, rain, reading of wet-bulb thermometer, sea swell, and weather, and will periodically be collated and forwarded to every large town in the world. It is hoped soon to place not only the northern hemisphere under a system of daily meteorological observations, but at stated intervals the entire civilised world.

Inquirens.—By application to the Secretary of the Medical Faculty of such Universities.

THE LAST EPIDEMIC OF TYPHOID IN LYONS.

To the Editor of THE LANCET.

SIR,—The number of THE LANCET for Jan. 20th contained a letter from your correspondent in Paris, who, in giving a review of the Société Médicale des Hôpitaux, was the involuntary echo of some errors, which arose in the course of the discussion before this Society, on the subject of the last epidemic in Lyons. I shall be obliged if you will allow me space for a few remarks on the subject.

At the end of April, 1874, a severe epidemic of typhoid fever broke out in this city. This epidemic was most remarkable in the fact of its spreading itself only in the lower quarters of the town, sparing the surrounding hills, the population of which was still more numerous, filthier, and used the same drinking-water, and yet none were taken with the fever but those who were obliged to spend the greater part of their time in the centre of the town, on account of their business. The cause of the disease was generally assigned to the numerous sewers that pass under the city, and which are in connexion not only with the streets by their openings, but also with the interior of the kitchens by the canals which receive the refuse waters from the houses. At that time there was a great drought, and the weather had suddenly become very hot. The rivers were exceedingly low, and there was not sufficient water to cleanse the sewers, almost deprived of all declivity in the interior of the town, whereas the sewers of the surrounding hills were easily cleaned by their natural slant. This general opinion was still strengthened by the fact of the disease prevailing principally amongst the cooks. I, for my part, had in my ward at the Hôtel Dieu no less than 32 cooks out of 38 cases. Shortly before, Dr. Glénard's important work had been issued, in which publication he not only related the cases he had witnessed when prisoner of war at Stettin, but detailed also the history of 72 cases, with 72 recoveries, he had treated himself by Brand's method when house-surgeon in different hospitals of Lyons. Therefore a great number of physicians adopted this method, and the public opinion was so well disposed towards it that, whenever the cases became serious, the physicians were almost compelled to have recourse to it by the patients' relatives. When the epidemic was ended, the Medical Society of Lyons, wishing to compare the value of the different systems, addressed to all the physicians of the place a number of questions relative to the treatment adopted &c. Although 30 doctors only out of 250 gave an answer, all the cases were collected by the Committee appointed for that purpose, and gave the following results:—The mortality in the cases treated by the so-called old methods was 5 per 100; by cold affusions, 6 per 100; by Brand's method, 4 per 100, instead of 9 per 100, as is mentioned by your correspondent after the report of the Société Médicale des Hôpitaux of Paris. Had this Society waited for the end of the debate before the Medical Society of Lyons, they would have seen the number of 9 per 100 was an error in ciphering, as was acknowledged by the reporter himself in the course of the discussion. The real number was 4 per 100. The difference, though not very material, is still important on account of the fact that the light cases were always treated by the old methods; whereas as soon as they became serious, cold water was employed, often too late. And this suffices to explain the cases of death, in spite of Brand's method; whereas under Brand's or Glénard's care, until then, no case of death had been observed, because the treatment was applied from the beginning of the disease.

As for the special service established at the Hôtel Dieu, which your correspondent alludes to, and which gave 9 fatal cases out of 52, the fact is true, and the physician of the ward gave in an interesting paper the explanation of so great a mortality, three-fourths at least of his patients having been sent to him in the third or even in the fourth week of the fever. But your correspondent does not mention the many special services established in the same way at the Hôtel Dieu and other hospitals, the result of which was much more favourable. Such was Dr. Tripier's, in which he had 15 cases and 15 cures. I had in mine 38 cases and 37 recoveries. The only fatal case occurred long after the cessation of the baths, from a serious imprudence in the diet. Still I had many complicated cases: 4 cases of serious intestinal hæmorrhage, declared before the treatment was begun; 5 cases of severe bronchitis. I treated also two pregnant women, the gestation following its usual course. Therefore at the end of a debate, which lasted seven sittings, the members were almost unanimously in favour of Brand's system, and their opinion was still confirmed by Dr. Mayet's report, which cannot give rise to any errors, as all his cases had been authenticated and chosen only from the public hospitals during the last five years. In the years 1872 and 1873, Brand's method was still unknown, and the number of deaths was 26 per 100. In the year 1874 almost all the typhoid cases were treated by Brand's method, which reduced the rate of mortality to 11 per 100. During the years 1875 and 1876, only the serious cases were treated by Brand's system, whilst more than two-thirds were treated by the old methods, and the mortality was 18 per 100. It is, moreover, to be observed that in the last three years the serious cases treated by Brand's method gave better results, and caused less mortality than the light cases treated otherwise. This evidence was so enlightened that all the members of the Society, except one, agreed that Brand's method was far superior to any other.

I am, Sir, yours respectfully,

LOUIS GRENOUX,

Lyons, Jan. 27th, 1877. Médecin de l'Hôtel Dieu.

GRANULAR EFFERVESCENT SALICIN.

MESSRS. SAVORY AND MOORE have forwarded us a sample of their granular effervescent salicin, a preparation they have just introduced to the notice of the profession. The agent is now so largely used that a successful attempt to render it more convenient and palatable, and especially to obviate the nausea frequently experienced by patients to whom it is administered in large doses, will be welcomed by all medical men. It is combined with citrate and tartrate of soda and potass, substances that it is difficult to imagine can in any way materially modify the special action of salicin on the system. Each drachm of the granular preparation contains five grains of salicin, so that half an ounce is equal to twenty grains. We have no hesitation in recommending it for trial.

J. B. R.—We believe the Secretaryship to the Veterinary Department of the Privy Council, recently held by Dr. Alexander Williams, is vacant, and it has been stated that the appointment will not be filled up, as a reorganisation is contemplated which will bring it into closer relation with the parent office.

M.D., (Paris.)—If our correspondent will frame his question in terms a little more clear and courteous, we shall try to answer it.

Dr. Sargent.—1. No.—2. No.

A Public Vaccinator would like to know where he can procure a supply of pure animal lymph for vaccination purposes.

Student will get all information by applying to the Clerk of the College of Physicians, Edinburgh.

D. B. Bramwell's letter shall be kept in mind.

TREATMENT OF HYDROPHOBIA IN GLASGOW.

To the Editor of THE LANCET.

SIR,—I heartily endorse the remarks made by Mr. Richardson with regard to the treatment the unfortunate man suffering from hydrophobia received at the Glasgow Royal Infirmary. When I read the case in THE LANCET (Jan. 20th), I could scarcely believe it possible such torture could be inflicted, and without the slightest object to be gained, unless it were the satisfying of a most abnormal curiosity. The admission of a dog to the ward of a patient labouring under this most dreaded of all diseases, sprinkling water on his face, breathing upon and fanning him with a towel, blowing upon his neck and face, &c., must surely be designated as nothing less than extreme cruelty, and certain to destroy the only chance of recovery the poor man may have had.

In the second case, recorded in THE LANCET of last Saturday (Jan. 27th), the same reprehensible practice is noted; for we read that when the hydrophobic patient was put to bed, "for the sake of experiment Dr. Mather took a basin containing water behind the door, and, lifting up some in a ladle, he allowed it to fall with a splash. The man was lying comparatively quiet; but on hearing this he started up, and cried, "Oh God, that water! that water! save me! save me!' This was followed by a long, deep, sobbing inspiration."

I have witnessed many cases of rabies in animals; but these could not be submitted to treatment for reasons which need not be specified. I am, therefore, in ignorance as to the results which might follow attempts at cure. But during my professional career I have treated a great number of cases of tetanus in animals, and I may say that all those which were tormented as these unhappy men were, surely and often quickly, succumbed; while the majority of those submitted to the opposite course of treatment recovered. I have only seen one case of rabies in man, and I feel certain that in this death was hastened by the irrational manner in which the patient was attended to; while there can be no doubt whatever that his agony was greatly increased. So deep an impression did this case make on my mind that, when taken into consideration with my experience of tetanus in animals, in writing my work on "Rabies and Hydrophobia" (published in 1872), I insisted upon *quietness* and *darkness* in the treatment of the malady in mankind. At page 315 you will find the following:—"It is scarcely necessary to say that the hydrophob should not be alarmed by those around him; but, on the contrary, soothed by kind, encouraging words. Quietude is above all things necessary, seeing that external influences induce more frequent and severe paroxysms. All useless interference or attention should be avoided. Like other nervous affections, this demands absolute tranquillity, and everything at all likely to excite the patient should be rigidly abstained from if possible; his questions should only be replied to, and no other talking ought to be permitted. Whatever he asks for should, if believed to be proper for him, be allowed; but nothing should be forced upon him. In proportion as he is tormented by nursing, visitors, inquisitive spectators, or the administration of food, drink, or medicines, so the more frequent and harassing are the fits. Seeing the evil effects of bright light in exciting the patient, and well knowing the beneficial influence of darkness in curing or relieving tetanus in the lower animals, the apartment in which he is located should be darkened. Perfect quietude and tranquillity should, above all things, be rigidly maintained, as the exacerbations of the malady—the return of the spasms and agonising symptoms—are frequent and severe in proportion as the patient is disturbed and excited. When left to himself he suffers less .....The great object to be attained is the prevention of the recurrence of the paroxysms, and thus allow the vital powers of the sufferer to overcome the effects of the poison. All allusion to the disease must be studiously avoided, and no mention should be made of the cause of it; 'dogs' and 'bites,' and 'water' or other fluid, ought not to be spoken of," &c.

This, it will be seen, is very different treatment from that which the two men received in the Glasgow Royal Infirmary. Indeed, in collecting materials for the work just alluded to, I was struck by the fact that in the great majority of cases of this disease in man, the victim received the opposite of quietude and tranquillity, and was frequently looked upon as an interesting case of the curious. The paroxysms induced by the annoyance and "experiments" are most agonising to the sufferer, and exceedingly painful to the beholder, if he has any feeling. Is it, therefore, too much to ask that it may be discontinued? Every paroxysm produces great exhaustion, and death is apparently due to exhaustion. Is it not, then, evident that every means should be adopted to prevent their recurrence? I would earnestly beg of those who may have the misfortune to treat cases of rabies in mankind to try the treatment I have suggested in the work alluded to, and a small portion of which I have quoted. If the patient does not recover, he will at least be spared very much of the anguish, and consequent exhaustion, which we are so frequently pained to read of.

It is scarcely necessary to protest against the dissemination of the notion that rabies and tetanus can be produced by mental disturbance. Both maladies are more frequent in animals than in the human species, and the most powerful imagination ever possessed by man could never enable him to simulate the characteristic symptoms of either disease.

Yours respectfully,

GEORGE FLEMING, M.R.C.V.S.,
Chatham, Jan. 30th, 1877. Royal Engineers.

To the Editor of THE LANCET.

SIR,—As a layman, I should be very glad to see your opinion as to the treatment of the case of hydrophobia at the Glasgow Royal Infirmary, a report of which you published on the 20th inst., and also a letter from Mr. Richardson in your issue of the 27th. Several of my friends have read the case, and withhold their opinions till you have taken up the matter. But, as the matter is reported, considerable anger has been expressed.

I am, Sir, yours obediently,

Liverpool, Jan. 29th, 1876. WM. Y. DAWBARN.

*** We think our correspondents have hardly taken into consideration the difficulties in the treatment of so terrible a case. The incident to which the patient's relapse is referred cannot have been other than accidental, as the language in which it is described seems to intimate. It is to be remembered also that the diagnosis of the case was by no means clear, and the proceedings referred to (fanning &c.) were, at any rate at first, needful for the purpose of diagnosis. No doubt some critics will deny that the case was one of hydrophobia at all. It seems to have been tended by the medical staff with great assiduity and at no small personal risk.—ED. L.

SMALL-POX AND REVACCINATION.

To the Editor of THE LANCET.

SIR,—I think the following facts may be of interest at the present time. They seem to prove that revaccination, even when successful, is not a protection against small-pox where the poison of that disease is already in the system, and so may be of use as regards prognosis.

CASE 1.—A little boy, aged six years, showed the eruption of small-pox on Dec. 11th, 1876. He was too young to be admitted as a private patient at Highgate, so he was completely isolated, after having been kissed and caressed by his brothers and sisters. He had one good vaccination mark, passed through a mild attack of the disease, and was released with a clean skin on Dec. 27th.

On Dec. 12th I revaccinated the rest of the family, consisting of six adults and three children; one adult and one child did not take; the rest were like primary vaccinations.

CASE 2.—On Dec. 24th the eruption appeared on a little girl, ten years old. Her revaccination had been most successful; she had four bad marks of primary vaccination. Her attack was rather smart; but her skin was clean, and she was let out on Jan. 12th, 1877.

CASE 3.—A little boy, seven years old, with one good vaccination mark, showed the eruption on Dec. 24th. He had been successfully revaccinated. He did not pass through the disease so well as the others, although his attack was mild. However, he was released on Jan. 15th, 1877.

The child who was revaccinated unsuccessfully was placed in the same room with the small-pox patients under the influence of a false alarm, and passed the night in the same bed with one of them, but he did not take the disease. He had four indifferent marks. I confess that when I found revaccination so successful I gave a very cheerful opinion that everyone was safe, and was astonished after a fortnight to find out my mistake. I was under the impresdon that the vaccine virus would cut out that of the small-pox. I think now that only those are safe who, after exposure to the contagion of small-pox, are vaccinated unsuccessfully.

Of course it may be thought that I had mistaken chicken-pox for small-pox, and I was suspicious of that myself at first; but that this was not so I think the following points will prove.

1. In all the cases there was a small amount of eruption in proportion to the fever and general malaise. There was no itching after the first day or two, and only a few of the pocks matured; yet in Case 2 the temperature was 103° on the second day, and in Case 3 the pulse kept at 108 for several days, and there was sore-throat.

2. The pocks which matured began as papules, enlarged, and became opaque on the fourth day, and then a small brown, depressed spot formed in the centre of each, and gradually spread till on the sixth or seventh day the pustule had become a scab, about one-fifth to one-fourth of an inch in diameter; this took from ten days to a fortnight to fall off, and left the skin depressed, and purple when exposed to the cold.

3. Small-pox is prevalent in the neighbourhood.

4. Case 2 had chicken-pox severely six or seven years ago.

I am, Sir, yours faithfully,

Kensington, Jan. 16th, 1877. JAS. LAFFEY, M.R.C.S., L.R.C.P.

DALTONISM.

To the Editor of THE LANCET.

SIR,—The following may be interesting in reference to Mr. Page's remarks.

That Daltonism should escape notice among the lower classes is not altogether surprising; but the subjoined case will show how much education can hide the presence of this strange defect of vision.

My eldest brother sketched very well, and, having a good technical knowledge of colouring and mixing colours, was able to paint very tolerably in water-colours, and yet he was so "thorough" a "Daltonian" that he was unable to perceive any difference between the red whiskers of a friend and a piece of parsley he held up. An upset of his colour-box on one occasion proved too much for him, and the red brick buildings of Radley College long figured in his portfolio of a sky-blue tint.

It is worthy of remark that in our family it has been found only to affect males, and in alternate generations. Two out of five of us are affected, and it has appeared in several collateral branches of our (the fifth) generation.

Yours obediently,

Abingdon, Jan. 17th, 1877. E. GOSSET, M.B.

SANTONIN.

To the Editor of THE LANCET.

SIR,—The annotation in your journal of the 23rd September, on the effects produced by santonin, was read with interest, as, in common with other practitioners, I use the drug almost daily. Almost, if not quite tasteless, and without odour, santonin forms a most efficient and agreeable anthelmintic for children; but the general practitioner will tremble to use it (unless he can watch his patient) if the drug be proved to possess such subtle properties. The peasantry in this island repeatedly buy this drug from chemists in the form of "worm powders" and "worm tablets," and I have never seen nor been called to treat convulsions after its use. I have seen, however, a case of retention of urine in a little child, three and a half years old, after taking six grains of the powder in forty-eight hours, followed by castor oil. Dr. Phillippo, of Kingston, tells me he has met with such cases; that after many years' experience he never saw convulsions, but temporary retention of urine in some few cases. I have not seen this fact noted before, and should like to hear, from any practitioner who has, the number of cases observed and the explanation suggested. The urine is frequently like that passed in jaundice, and will stain linen. A small dose of three grains will often remove as many as one hundred to one hundred and fifty worms.

Yours faithfully,

St. Elizabeth, Jamaica, Nov. 23rd, 1876. JAMES HENRY CLARK.

AN EXPLANATION.

To the Editor of THE LANCET.

SIR,—Our attention has been directed to a letter in your columns from Dr. Tilbury Fox, which is quite unintentionally so constructed as to lead to inferences prejudicial to our reputation.

The advertisement referred to by Dr. Tilbury Fox is a quotation from his larger work on the Skin, page 509, "This is the best soap made"; and on receipt of a request from him to discontinue its use, we immediately, as an act of courtesy, withdrew it.

Yours faithfully,

Great Russell-street, W.C., Jan. 27th, 1877. A. AND F. PEARS.

ERRATUM.—In the report of Dr. Henry Thompson's case of Leucocythæmia in last week's "Mirror," p. 125, line 7, first paragraph, for "Ten months before that date," read "Ten months before admission."

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. T. Bryant, London; Dr. Pavy, London; Dr. Henry Thompson, London; Mr. Dalby, London; Mr. Maunder, London; Mr. Sampson Gamgee, Birmingham; Dr. C. T. Williams, London; Mr. R. Macnamara, Dublin; Mr. Moore, London; Dr. Fox; Mr. Howard; Dr. Boddy, Holt; Dr. Casley, Guildford; Messrs. Brand and Co., London; Mr. Tallack, London; Mr. Grant, Stromness; Dr. Seymour, Cape of Good Hope; Dr. Willoughby, London; Dr. Drysdale, London; Dr. Richards, London; Dr. Brietzcke, Portsea; Dr. Willis, Horrabridge; Mr. Beach, Lower Clapton; Dr. Caton, Liverpool; Mr. Leach, Sturminster Newton; Messrs. A. and F. Pears, London; Mr. Cowan, Islington; Dr. Neale, St. John's-wood; Dr. Nankivell, Torquay; Dr. Taylor, Scarborough; Mr. Liddell, Whitehall; Mr. Styrap, Shrewsbury; Mr. Russell, Neath; Mr. Bell, Charlestown, West Indies; Mr. Adams, Shekarpur, India; Dr. Mickle, Eastfield; Mr. Steven, London; Dr. Eddy, Fulham; Dr. Bramwell, Newcastle-on-Tyne; Dr. More, Rothwell; Mr. Langston, Strood; Mr. Trott, Hartshill; Mr. Dawbarn, Liverpool; Mr. MacMahon, Sheffield; Mr. Cooke, London; Mr. Walter, Long Eaton; Mr. Knapton, Cambridge; Dr. Grigg, London; Dr. Howard, New York; Miss Williams, Swindon; Dr. Charteris, Glasgow; Mr. Harries, Plymouth; Mr. Terry; Dr. Carter; Mr. Smith; Mr. Ley, Manchester; Dr. Ritchie, Otley; Mr. Huggins, Leeds; Dr. Collie, Homerton; Dr. Price; Dr. Coghill, Ventnor: Dr. Marsh; Dr. Gowan; Dr. Percival; Dr. Lowe; Dr. Lumsden, Naas; Dr. Constable, Lambeth; Mr. Goodwin, Eastbourne; Mr. Vaughan, Denbigh; Dr. Eberle, Easingwold; Mr. Fleming, Chatham; Dr. Gignoux; Mr. Freeman; Dr. Spencer, Preston; Mr. Hayward, Liverpool; Mr. Reeves; Dr. Blake, Tavistock; Dr. Edis; Dr. Rayne, Eccles; Mr. Boyd; Mr. Davies, Gateshead; Mr. Hilliard; Mr. Bernays; Mr. Miller; Mr. Howse; Mr. Hebb; Mr. Dixon Mann; Mr. Ebery, London; C. M.; The Registrar-General of Births and Deaths; An Unqualified Assistant; One who Lives and Learns; Reform; Inquirens; M.D., Paris; Colonial; One of the Unqualified; Mens Conscia Recti; G. H. W.; Medicus, Cambridge; M.D., Coventry; Inquirer; M.R.C.S.E.; Public Vaccinator; A. B.; M. B.; Veritas; Surgeon, Bodmin; Fair Play; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Godfrey, Northampton; Mr. Maskelyne, Faringdon; Mr. D'Orsey, London; Dr. Craig, Bedford; Mr. Hammond, Trinidad; Dr. Hunter, Linlithgow; Dr. Pogston, Seacroft; Dr. Bantock, London; Mr. Wade, Preston Pans; Mr. Roberts; Mr. W. D. Jones; Mr. Cousans; Mr. Dicey; Mr. Turner; Dr. Monckton, Rugeley; Dr. May, Birmingham; Mr. Prosser, Bromsgrove; Mr. Buller; Dr. Macdonald, Carbost; Mr. Symonds, Crowland; Mr. Williams, Truro; Mr. Tomlinson, Oundle; Mr. Johnston; Fibula; Miles; A. B., Ramsgate; Medicus, Cork; A. B., Shotton; G. B.; E. M. E.; P.; J. Y. T.; M.R.C.S., Oldeburgh; Medicus, Leeds; Beta, Greenheys; W. R. H., Wexford; Biceps; M. M., Newcross; Graduate; Medicus.

Croydon Chronicle, Temperance Record, Newcastle Daily Chronicle, Leeds Mercury, Welshman, Weston-super-Mare Gazette, Sunday Times, Spectator, Academy, Schoolmaster, Broad Arrow, Pharmaceutical Journal, Examiner, United Service Gazette, Metropolitan, Land and Water, Tavistock Gazette, Solicitors' Journal and Reporter, Surrey Advertiser, Liverpool Mercury, Brighton Herald, Monthly Homœopathic Review, Glasgow Herald, Liverpool Daily Post, Richmond and Twickenham Times, Record, Hampshire Independent, Sheffield Daily Telegraph, Medical Press, and *North British Daily Mail* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, FEB. 1ST, 1877.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall	Remarks at 8 A.M.
Jan. 26	30·06	S.W.	35	37	...	44	35	0·21	Foggy
,, 27	30·21	S.W.	37	39	...	49	32	...	Raining
,, 28	30·02	S.W.	45	47	...	52	37	0·08	Cloudy
,, 29	30·07	W.	35	38	...	51	35	0·07	Hazy
,, 30	29·42	S.W.	45	48	...	49	36	0·02	Raining
,, 31	30·09	WNW	36	38	...	49	35	0·21	Foggy
Feb. 1	29·79	W.	48	49	...	51	36	0·22	Overcast

Medical Diary for the ensuing Week.

Monday, Feb. 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

MEDICAL SOCIETY OF LONDON.—8½ P.M. Third Lettsomian Lecture, by Dr. A. Wiltshire, "On Vascular Rhythm as exemplified in Periodical Hæmorrhages, General and Local; and on the Treatment of Hæmorrhages from the Female Generative Organs."

Tuesday, Feb. 6.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. Adjourned special evening for the exhibition and discussion of Specimens of Visceral Syphilis. Specimens will be exhibited by Mr. Hutchinson, Drs. Aitken, Buzzard, Davidson, Goodhart, Gowers, Green, Pye Smith, Shepherd, and Sutton.

Wednesday, Feb. 7.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens.—President's Address.—Drs. Hickman, Godson, Heywood Smith, and Elkington: "Cases of Inversio Uteri."—Dr. Braithwaite, "On the Treatment of Retroflexion."—And other communications.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Anniversary Meeting, President's Address, &c. &c.

Thursday, Feb. 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Feb. 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."

CLINICAL SOCIETY OF LONDON.—8½ P.M. Mr. Christopher Heath: Sequel of a "Case of Aneurism of the Aorta treated by Ligature of the Left Carotid Artery"; communicated in 1872 (a living subject).—Mr. Holmes: Sequel of a "Case of Aneurism of the Aorta treated by Ligature of the Left Carotid Artery"; communicated in March, 1876 (a living subject).—Mr. Pugin Thornton, "On a Case of Tracheotomy in which the Operation was performed three times in the course of a few years" (a living subject).—Dr. Greenfield, "On a Case of Hydatid of the Lung."

Saturday, Feb. 10.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	0
For every additional line ...	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.

Agent for the Advertising Department in France—

Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.